

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

C Number:	C97003D
Lock Date:	03/23/2005
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	04/26/2007

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CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 1	TRT#: 1	SEX: Male	DAY ON TEST: 561
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403261

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Marked
* Brain	Cerebrum	Edema	Minimal
	Cerebrum	Hemorrhage	Minimal
* Heart		Cardiomyopathy	Mild
Note: Rafts of atypical cells noted in right atrium and right ventricle; interpreted as tumor emboli from the primary histiocytic sarcoma.			
* Intestine Large, Cecum		Inflammation	Minimal
* Kidney		Histiocytic Sarcoma	Metastatic (Skin)
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Histiocytic Sarcoma	Metastatic (Skin)
		Inflammation	Minimal
Note: Numerous tumor emboli (histiocytic sarcoma) noted in portal veins.			
[Histiocytic Sarcoma TGLS = 5-6+7]			
* Lung		Histiocytic Sarcoma	Metastatic (Skin)
[Histiocytic Sarcoma TGLS = 6-3+4]			
Lymph Node	Pancreatic	Histiocytic Sarcoma	Metastatic (Skin)
[Histiocytic Sarcoma TGLS = 7-15]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
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Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 1	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 561 HISTO: 0403261
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ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric		Hyperplasia	Plasma Cell, Mild
* Mammary Gland			
Note: Note: invasion of histiocytic sarcoma along subcutis.			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 4-14]			
* Prostate		Inflammation	Mild
* Skin		Histiocytic Sarcoma	
Note: The two inguinal mammary masses (noted grossly) each correspond microscopically to histiocytic sarcoma of the skin (dermis/subcutis). Mammary gland is normal.			
[Histiocytic Sarcoma TGLS = 1-16, 2-17]			
* Spleen		Hematopoietic Cell Proliferation	Mild
[Hematopoietic Cell Proliferation TGLS = 3-5]			
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH	- Skin	Histiocytic Sarcoma
CONTRIBUTORY CAUSE OF DEATH	- Liver	Histiocytic Sarcoma Skin;Lung Histiocytic Sarcoma Skin

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
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P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 2	TRT#: 1	SEX: Male	DAY ON TEST: 728
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403262

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		[Hyperplasia TGLS = 1-6+7]	
		[Hypertrophy TGLS = 1-6+7]	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
	Pars Distalis	Pigmentation	Hemosiderin, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
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Species/Strain: Rat/F 344/N

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Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 2	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403262
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ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperplasia	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 3	TRT#: 1	SEX: Male	DAY ON TEST: 728
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403263

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Cyst	Mild
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin		Lipoma	
Note: TGL1 = hibernoma of subcutis.			
			[Lipoma TGLS = 1-14]
* Testes	Bilateral, Interstit Cell	Adenoma	
			[Adenoma TGLS = 2-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403264

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Hepatocellular Carcinoma	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[Hepatocellular Carcinoma TGLS = 4-14]			
Mesentery		Necrosis	Mild
[Necrosis TGLS = 1-14]			
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-8]			
* Prostate		Inflammation	Mild
* Spleen		Hyperplasia	Lymphoid, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
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Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 4	TRT#: 1	SEX: Male	DAY ON TEST: 728
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403264

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 2-5]		
* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 3-11]		
* Thyroid Gland	C Cell	Adenoma

PRIMARY CAUSE OF DEATH	-
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 5	TRT#: 1	SEX: Male	DAY ON TEST: 729
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403265

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon	Serosa	Cyst	Focal, Mild
Note: TGL4 = serosal epithelial inclusion cyst. [Cyst TGLS = 4-15]			
* Kidney		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Minimal
* Skin	Subcut Tiss	Fibroma	
Note: TGL1 coded as skin. [Fibroma TGLS = 1-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 5	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403265
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ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-11]		
* Thyroid Gland	C Cell	Adenoma
PRIMARY CAUSE OF DEATH	-	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 6	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403266
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Serosa	Fibrosis	Minimal
	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Note: Type 2 pneumocyte hypertrophy associated with alveolar hemorrhage.			
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

[Adenoma TGLS = 3-14]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
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Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 6	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403266
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ORGAN AND ACCOUNTABLE SITE STATUS

* Skin [Schwannoma Benign TGLS = 2-15]	Subcut Tiss	Schwannoma Benign
* Testes [Adenoma TGLS = 1-11]	Bilateral, Interstit Cell	Adenoma
* Thyroid Gland	C Cell	Adenoma

PRIMARY CAUSE OF DEATH	-
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 7	TRT#: 1	SEX: Male	DAY ON TEST: 696
	DOSE: 0 MG/KG	DISP: Natural Death	HISTO: 0403267

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
Blood Vessel			
Note: MCL noted in aorta.			
* Bone Marrow		Hyperplasia	Marked
* Brain		Hemorrhage	Moderate
		Leukemia Mononuclear	
[Hemorrhage TGLS = 3-9]			
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
Note: TGL4 = NCL.			
[Leukemia Mononuclear TGLS = 2-6+7+14]			
* Lung		Leukemia Mononuclear	
Note: Multifocal hemorrhage and necrosis noted (slide 4).			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
Note: Inflammation associated with forage fragments.			
* Pancreas	Duct	Cyst	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
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Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 7	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Natural Death	DAY ON TEST: 696 HISTO: 0403267
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia Leukemia Mononuclear	Mild
* Prostate	Epithelium	Hyperplasia Inflammation	Mild Mild
* Spleen [Leukemia Mononuclear TGLS = 1-14]		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Brain Hemorrhage

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 675

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403268

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6+7]		
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-15]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pancreas	Acinus	Atrophy	Mild
	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
	[Hyperplasia TGLS = 2-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 8	TRT#: 1	SEX: Male	DAY ON TEST: 675
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403268

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 3-5]		Leukemia Mononuclear
* Testes [Adenoma TGLS = 1-11]	Bilateral, Interstit Cell	Adenoma

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
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Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 9	TRT#: 1	SEX: Male	DAY ON TEST: 729
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403269

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Fatty Change	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-16]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 4-18, 5-17]			
* Pancreas	Acinus	Atrophy	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 9	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403269
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [Adenoma TGLS = 6-8]	Pars Distalis	Adenoma	
* Prostate	Epithelium	Hyperplasia Inflammation	Minimal Mild
* Testes	Interstitial Cell	Adenoma Atrophy	Moderate
[Adenoma TGLS = 2-14] [Atrophy TGLS = 3-11]	Interstitial Cell	Hyperplasia	Minimal
* Thyroid Gland [Adenoma TGLS = 7-15]	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 672

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403270

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Thyroid Gland	* Trachea		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
Note: mononuclear cell leukemia (MCL) in peri-aortic fat.			
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
* Liver		Hepatodiaphragmatic Nodule	Mild
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Hepatodiaphragmatic Nodule TGLS = 6-14]			
[Leukemia Mononuclear TGLS = 5-6+7+14]			
* Lung		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-3+4]			
Lymph Node	Deep Cervical, Mediastinal	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-15, 3-14]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-16]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 10	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 672 HISTO: 0403270
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ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 10-18]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-15]			
* Stomach, Forestomach		Inflammation	Moderate
		Ulcer	Moderate
[Ulcer TGLS = 9-17]			
* Stomach, Glandular		Erosion	Mild
		Inflammation	Mild
[Erosion TGLS = 9-17]			
* Testes		Atrophy	Mild
	Interstit Cell	Hyperplasia	Minimal
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 603

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403271

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Fatty Change	Mild
		Hematopoietic Cell Proliferation	Minimal
		Hepatodiaphragmatic Nodule	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[Fatty Change TGLS = 4-7]			
[Hepatodiaphragmatic Nodule TGLS = 3-14]			
* Lung		Schwannoma Malignant	Metastatic (Skin)
[Schwannoma Malignant TGLS = 5-3+4+16]			
* Pancreas	Acinus	Atrophy	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	Subcut Tiss	Schwannoma Malignant	

Note: TGL1 coded as skin.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 11	TRT#: 1	SEX: Male	DAY ON TEST: 603
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403271

ORGAN AND ACCOUNTABLE SITE STATUS

[Schwannoma Malignant TGLS = 1-15]

* Spleen		Leukemia Mononuclear
* Testes	Bilateral, Interstit Cell	Adenoma

[Adenoma TGLS = 2-11]

PRIMARY CAUSE OF DEATH	- Skin Subcut Tiss Schwannoma Malignant
CONTRIBUTORY CAUSE OF DEATH	- Lung Schwannoma Malignant Skin;Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403272

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Moderate
* Islets, Pancreatic		Adenoma	
[Adenoma TGLS = 5-16]			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 4-14]			
* Skin	Epidermis	Hyperplasia	Moderate
	Dermis	Inflammation	Moderate
[Inflammation TGLS = 1-17]			
* Spleen		Fibrosarcoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 12	TRT#: 1	SEX: Male	DAY ON TEST: 728
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403272

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibrosarcoma TGLS = 2-15]		
* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 3-11]		
* Thyroid Gland	C Cell	Adenoma

PRIMARY CAUSE OF DEATH	-
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403273

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney	Renal Tubule	Adenoma	
		Mineralization	Minimal
		Nephropathy	Minimal
[Adenoma TGLS = 2-5+14]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403274

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Inflammation	Mild
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 1-8]	
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
		[Adenoma TGLS = 2-11]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 14	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403274
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ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Trachea		Infiltration Cellular	Mononuclear CI, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 566

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403275

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Marked
* Eye			
Note: Optic nerve in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6+7]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-15]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Prostate	Epithelium	Hyperplasia	Minimal
* Spleen		Leukemia Mononuclear	
Note: Focal necrosis/hemorrhage observed.			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 15	TRT#: 1	SEX: Male	DAY ON TEST: 566
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403275

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-14]

* Testes	Interstit Cell	Hyperplasia	Mild
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PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403276

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
Note: Findings from slides 8 and 8A.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Mild
* Testes	Interstitial Cell	Adenoma	
		Atrophy	Moderate
	Interstitial Cell	Hyperplasia	Mild

[Adenoma TGLS = 1-11]

[Hyperplasia TGLS = 1-11]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 16	TRT#: 1	SEX: Male	DAY ON TEST: 729
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403276

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403277

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
		Leukemia Mononuclear	
	Note: Inflammation associated with eosinophilic crystals.		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-8]		
* Prostate		Inflammation	Mild
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 17	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403277
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ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 2-5]			
* Testes		Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
[Hyperplasia TGLS = 4-11]			
* Thymus		Mineralization	Minimal

PRIMARY CAUSE OF DEATH	-
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 605

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403278

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Fibrous Histiocytoma	Metastatic (Skin)
* Heart		Cardiomyopathy	Mild
* Kidney		Fibrous Histiocytoma	Metastatic (Skin)
		Mineralization	Minimal
		Nephropathy	Mild
[Fibrous Histiocytoma TGLS = 6-15]			
* Liver		Degeneration	Cystic, Minimal
* Lung		Fibrous Histiocytoma	Metastatic (Skin)
[Fibrous Histiocytoma TGLS = 4,5-3+4+16+17]			
Lymph Node		Fibrous Histiocytoma	Metastatic (Skin)
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Moderate
* Salivary Glands		Basophilic Focus	Minimal
* Skin	Subcut Tiss	Fibrous Histiocytoma	
[Fibrous Histiocytoma TGLS = 1-18]			
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 18	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Natural Death	DAY ON TEST: 605 HISTO: 0403278
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ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-11] * Thyroid Gland	Interstit Cell C Cell C Cell	Hyperplasia Adenoma Hyperplasia	Minimal Minimal
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PRIMARY CAUSE OF DEATH	- Skin Subcut Tiss Fibrous Histiocytoma
CONTRIBUTORY CAUSE OF DEATH	- Lung Fibrous Histiocytoma Skin

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 661

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403279

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain		Astrocytoma Malignant	
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Fatty Change	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Marked
Note: Hyperplasia associated with hemorrhage, hemosiderin pigment and increased number of alveolar macrophages.			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
* Testes	Interstit Cell	Adenoma	
		Atrophy	Mild
	Interstit Cell	Hyperplasia	Minimal

[Adenoma TGLS = 1-11]

PRIMARY CAUSE OF DEATH

- Brain Astrocytoma Malignant

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 554

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403280

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
Note: Hypertrophy associated with vacuolization.			
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart	Atrium	Thrombosis	Mild
* Kidney		Leukemia Mononuclear	
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6+7]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3,5-14+15]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-5]			
* Stomach, Forestomach		Edema	Mild
* Stomach, Glandular		Edema	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 554

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403280

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403281

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
		[Adenoma TGLS = 1-11]	
* Trachea		Fibrosis	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 650

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403282

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Esophagus		Inflammation	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	Minimal
* Kidney		Nephropathy	Marked
[Nephropathy TGLS = 2-5]			
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung		Inflammation	Moderate
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Prostate		Inflammation	Mild
* Stomach, Forestomach		Edema	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-11]			
* Thymus			
Note: Inflammation noted in perithymic fat (slide 3).			
* Trachea		Inflammation	Mild

PRIMARY CAUSE OF DEATH

- Kidney Nephropathy

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 650

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403282

ORGAN AND ACCOUNTABLE SITE STATUS

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403283

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Testes	Bilateral, Interstit Cell	Adenoma	

[Adenoma TGLS = 1-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403284

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-11]		
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 542

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403285

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 2-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
Note: Hemorrhage and hemosiderin pigment associated with adenoma.			
[Adenoma TGLS = 1-8]			
* Prostate		Inflammation	Mild
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403286

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: Optic nerve found in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403287

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Minimal
* Skin	Subcut Tiss	Fibroma	
Note: TGL1 coded as skin tumor.			
[Fibroma TGLS = 1-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Trachea		Inflammation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 671

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403288

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	Peripheral Nerve	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
Blood Vessel			
Note: MCL observed in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-6+7]			
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical, Mediastinal, Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3,5,6-14+17+18]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-16]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 7-15]			
* Prostate		Inflammation	Moderate
Spinal Cord	Meninges	Leukemia Mononuclear	
Note: MCL observed in cervical, thoracic, lumbar regions.			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 28	TRT#: 1	SEX: Male	DAY ON TEST: 671
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403288

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 2-14]		Leukemia Mononuclear	
* Testes		Atrophy	Minimal
* Thymus		Leukemia Mononuclear	
* Thyroid Gland [Carcinoma TGLS = 9-8]	C Cell	Carcinoma	
* Urinary Bladder [Hyperplasia TGLS = 8-5]	Transit Epithe	Hyperplasia Inflammation Leukemia Mononuclear	Mild Mild

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Spinal Cord Meninges Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 29	TRT#: 1	SEX: Male	DAY ON TEST: 709
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403289

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Mesothelioma Benign	
* Heart	Atrium	Thrombosis	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Necrosis	Moderate
		[Necrosis TGLS = 3-6+7]	
* Lung	Alveolus	Alveolar/Bronchiolar Adenoma	
		Infiltration Cellular	Histiocyte, Minimal
		[Alveolar/Bronchiolar Adenoma TGLS = 4-4]	
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate		Fibrosis	Mild
		Inflammation	Minimal
		Note: Inflammation associated with fibrosis.	
* Skin	Subcut Tiss	Fibroma	
		Note: TGL1 coded as skin.	
		[Fibroma TGLS = 1-14]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 29	TRT#: 1	SEX: Male	DAY ON TEST: 709
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403289

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen Note: fibrosis noted at one margin of spleen.		Leukemia Mononuclear	
* Stomach, Glandular [Erosion TGLS = 5-15]		Erosion	Mild
* Testes [Adenoma TGLS = 2-11]	Bilateral, Interstit Cell	Adenoma Mesothelioma Benign	

PRIMARY CAUSE OF DEATH	- Heart Atrium Thrombosis
CONTRIBUTORY CAUSE OF DEATH	- Liver Necrosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 552

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403290

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 2-15]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Prostate		Inflammation	Moderate
* Seminal Vesicle		Inflammation	Moderate
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 1-16]			
* Thyroid Gland	Follicular Cel	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 562

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403291

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
Peripheral Nerve	* Salivary Glands	* Seminal Vesicle	* Skin
Spinal Cord	* Spleen	* Testes	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Brain	Cerebrum	Developmental Malformation	Focal
		Hydrocephalus	Mild
Note: small focus of neoplastic cells (pituitary tumor) invading meninges/brain on slide 9 in region of compression.			
Note: deformity on ventral aspect of cerebrum consists of compression due to pituitary adenoma.			
[Developmental Malformation TGLS = 2-9]			
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-14]			
* Preputial Gland	Duct	Cyst	Mild
* Prostate		Inflammation	Mild
* Stomach, Forestomach		Inflammation	Moderate
		Ulcer	Moderate
* Stomach, Glandular		Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 562

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403291

ORGAN AND ACCOUNTABLE SITE STATUS

* Trachea

Note: Dilated submucosal glands.

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403292

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney	Transit Epithe	Hyperplasia	Minimal
		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 3-6+7]	
* Lung		Inflammation	Minimal
		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Adenoma	
		Note: TGL1 coded as preputial gland.	
		[Adenoma TGLS = 1-14]	
* Prostate		Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 32	TRT#: 1	SEX: Male	DAY ON TEST: 728
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403292

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 2-5]		Leukemia Mononuclear
* Testes [Adenoma TGLS = 4-11]	Bilateral, Interstit Cell	Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 612

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403293

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6+7+16, 5-16]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland	Duct	Cyst	Marked
		Inflammation	Moderate
	Note: The gross observation of skin mass (inguinal) corresponds microscopically to a large preputial gland cyst with inflammation (slide 14).		
	[Cyst TGLS = 1-14]		
	[Inflammation TGLS = 1-14]		
* Prostate		Inflammation	Mild
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-15]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 33	TRT#: 1	SEX: Male	DAY ON TEST: 612
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403293

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 3-11]		

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403294

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
* Prostate	Epithelium	Hyperplasia	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 672

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403295

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
[Nephropathy TGLS = 3-5]			
* Liver		Fatty Change	Moderate
	Bile Duct	Hyperplasia	Mild
[Fatty Change TGLS = 1-6+7]			
* Lung		Inflammation	Minimal
Mesentery		Inflammation	Mild
Note: Inflammation noted in mesenteric fat adjacent to stomach perforating ulcer.			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-16]			
* Prostate		Inflammation	Moderate
* Stomach, Forestomach		Inflammation	Moderate
		Ulcer	Moderate

Note: Inflammation most severe at site of perforating ulcer in squamous portion.

Note: inflammation noted in mesenteric fat adjacent to perforating ulcer (coded inflammation in mesentery).

[Ulcer TGLS = 2-6+15]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 35	TRT#: 1	SEX: Male	DAY ON TEST: 672
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403295

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Bilateral, Interstit Cell	Adenoma
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Note: Adenoma also found in right testis (slide 11).
[Adenoma TGLS = 4-14]

PRIMARY CAUSE OF DEATH	- Kidney Nephropathy
CONTRIBUTORY CAUSE OF DEATH	- Liver Fatty Change;Stomach;Forestomach Ulcer

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 713

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403296

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Moderate
* Kidney		Mesenchymal Tumor Benign	
		Mineralization	Minimal
		Nephropathy	Minimal
	[Mesenchymal Tumor Benign TGLS = 1-15+16]		
* Liver		Leukemia Mononuclear	
		Necrosis	Minimal
* Lung		Inflammation	Minimal
		Leukemia Mononuclear	
* Nose		Thrombosis	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-14]		
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Leukemia Mononuclear	
* Stomach, Glandular		Erosion	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 36	TRT#: 1	SEX: Male	DAY ON TEST: 713
	DOSE: 0 MG/KG	DISP: Natural Death	HISTO: 0403296

ORGAN AND ACCOUNTABLE SITE STATUS

[Erosion TGLS = 4-6]		Pigmentation	Minimal
[Pigmentation TGLS = 4-6]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH - Kidney Mesenchymal Tumor Benign

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403297

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Harderian Gland		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
[Clear Cell Focus TGLS = 4-14]			
Mesentery		Necrosis	Mild
[Necrosis TGLS = 3-16]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-15]			
* Prostate		Inflammation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403297

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1-11]

* Thyroid Gland

C Cell

Hyperplasia

Marked

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 709

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403298

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
		Mineralization	Minimal
		Necrosis	Mild
		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Marked
* Eye	Retina	Atrophy	Minimal
		Cataract	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung		Alveolar/Bronchiolar Carcinoma	
		Inflammation	Minimal
		Leukemia Mononuclear	
	[Alveolar/Bronchiolar Carcinoma TGLS = 4-16]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 38	TRT#: 1	SEX: Male	DAY ON TEST: 709
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403298

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 5-15]		Leukemia Mononuclear	
* Mammary Gland		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Mild
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
	[Adenoma TGLS = 3-8]		
* Prostate		Inflammation	Minimal
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-14]		
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thymus			
Note: Mediastinal lymph node (associated with thymus on slide 3) effaced with MCL.			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma
CONTRIBUTORY CAUSE OF DEATH	- Lung Alveolar/Bronchiolar Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 679

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403299

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Small, Duodenum		Erosion	Mild
		Inflammation	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Fatty Change	Moderate
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung		Inflammation	Minimal
* Nose		Inflammation	Minimal
Note: Luminal nasopharynx inflammation associated with foreign body.			
* Pancreas	Acinus	Atrophy	Minimal
	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Prostate		Inflammation	Mild
* Stomach, Forestomach		Inflammation	Mild
		Squamous Cell Papilloma	
* Stomach, Glandular		Erosion	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 39	TRT#: 1	SEX: Male	DAY ON TEST: 679
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403299

ORGAN AND ACCOUNTABLE SITE STATUS

	Inflammation	Mild
	Thrombosis	Minimal
Note: Thrombosis noted at site of glandular mucosal erosion.		
* Testes	Bilateral, Interstit Cell	
	Adenoma	
	Atrophy	Mild
[Atrophy TGLS = 2-11]		

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403300

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Nephropathy	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Moderate
	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 5-15]		
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin		Keratoacanthoma	
	[Keratoacanthoma TGLS = 4-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 40	TRT#: 1	SEX: Male	DAY ON TEST: 728
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403300

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 2-5]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 1-11]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Adenoma Infiltration Cellular	Mononuclear CI, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403301

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Leukemia Mononuclear	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Necrosis	Mild
[Necrosis TGLS = 3-14]			
* Prostate		Inflammation	Mild
* Skin	Subcut Tiss	Fibroma	
Note: TGL1 coded as skin.			
[Fibroma TGLS = 1-15]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-5]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 41	TRT#: 1	SEX: Male	DAY ON TEST: 728
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403301

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-11]		Atrophy	Moderate
[Atrophy TGLS = 5-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 714

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403302

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Hepatodiaphragmatic Nodule	Mild
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 3-14]		
* Lung		Inflammation	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-3+4]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate	Epithelium	Hyperplasia	Mild
* Skin	Subcut Tiss	Fibroma	

Note: TGL2 coded as skin.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 42	TRT#: 1	SEX: Male	DAY ON TEST: 714
	DOSE: 0 MG/KG	DISP: Natural Death	HISTO: 0403302

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibroma TGLS = 2-16]	
* Spleen	Leukemia Mononuclear
[Leukemia Mononuclear TGLS = 1-15]	
* Testes	Bilateral, Interstit Cell
[Adenoma TGLS = 4-11]	Adenoma

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403303

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	Subcut Tiss	Fibroma	
Note: TGL2 coded as skin.			
[Fibroma TGLS = 2-14]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Carcinoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403303

ORGAN AND ACCOUNTABLE SITE STATUS

Follicular Cel

Carcinoma

[Carcinoma TGLS = 3-8]

[Carcinoma TGLS = 3-8]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403304

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Marked
* Harderian GI			
Note: Lacrimal gland found in section.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hyperplasia	Minimal
		Inflammation	Minimal
[Hyperplasia TGLS = 7-6+7]			
[Hyperplasia TGLS = 7-6+7]			
Mesentery		Necrosis	Mild
[Necrosis TGLS = 4-14]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 44	TRT#: 1 DOSE: 0 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403304
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ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 3-8]			
* Prostate	Epithelium	Hyperplasia Inflammation	Minimal Minimal
* Skin		Keratoacanthoma	
[Keratoacanthoma TGLS = 2-16, 1-15]			
* Spleen		Hematopoietic Cell Proliferation Hyperplasia	Mild Lymphoid, Mild
[Hematopoietic Cell Proliferation TGLS = 6-5]			
[Hyperplasia TGLS = 6-5]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 5-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403305

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Mammary Gland		Inflammation	Minimal
* Pancreas	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 1-8]	
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Testes		Atrophy	Minimal
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403306

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Preputial Gland		Adenoma	
[Adenoma TGLS = 1-12]			
* Prostate		Inflammation	Mild
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 46	TRT#: 1	SEX: Male	DAY ON TEST: 728
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403306

ORGAN AND ACCOUNTABLE SITE STATUS

		Atrophy	Minimal
	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 451

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403307

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Eye			
Note: Small segment of optic nerve in slide 9.			
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6+7]			
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-15]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Minimal
* Spleen		Infarct	Moderate
		Leukemia Mononuclear	
[Infarct TGLS = 2-15]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 47	TRT#: 1	SEX: Male	DAY ON TEST: 451
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403307

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-14+15]

* Testes	Interstit Cell	Hyperplasia	Minimal
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PRIMARY CAUSE OF DEATH	- Spleen Infarct
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 609

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403308

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
		Hepatodiaphragmatic Nodule	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 3,4-14+15]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Mild
[Necrosis TGLS = 2-16]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-8]			
* Prostate		Inflammation	Moderate
* Skin	Subcut Tiss	Fibroma	
Note: TGL1 coded as skin.			
[Fibroma TGLS = 1-17]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 48	TRT#: 1	SEX: Male	DAY ON TEST: 609
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403308

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403309

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex [Degeneration TGLS = 2-8]		Degeneration	Cystic, Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Clear Cell Focus	
		Hyperplasia	Minimal
		Inflammation	Minimal
* Pituitary Gland [Hyperplasia TGLS = 1-14]	Pars Distalis	Hyperplasia	Moderate
* Prostate		Inflammation	Mild
* Testes [Adenoma TGLS = 3-11]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 631

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403310

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Fatty Change	Moderate
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Pancreas	Acinus	Atrophy	Moderate
	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-8]		
* Prostate		Inflammation	Mild
* Stomach, Forestomach		Inflammation	Mild
* Stomach, Glandular		Inflammation	Minimal
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 631

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403310

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 51

TRT#: 3

SEX: Male

DAY ON TEST: 693

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403311

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Mammary Gland
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OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Eye		Cataract	Minimal
* Heart		Cardiomyopathy	Moderate
* Islets, Pancreatic		Adenoma	
* Kidney		Infarct	Moderate
		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
[Infarct TGLS = 6-16]			
* Liver		Hepatocellular Adenoma	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Moderate
		Leukemia Mononuclear	
[Hepatocellular Adenoma TGLS = 8-14]			
[Hepatodiaphragmatic Nodule TGLS = 2-14]			
[Leukemia Mononuclear TGLS = 4-6+7+14]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 51	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Natural Death	DAY ON TEST: 693 HISTO: 0403311
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ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric		Thrombosis	Minimal
* Pituitary Gland	Pars Distalis	Leukemia Mononuclear	
* Spleen		Adenoma	
		Hemorrhage	Moderate
		Leukemia Mononuclear	
	[Hemorrhage TGLS = 5-15]		
	[Leukemia Mononuclear TGLS = 3-15]		
* Stomach, Glandular		Inflammation	Moderate
		Ulcer	Moderate
	Note: inflammation associated with ulcer.		
* Testes	Interstit Cell	Adenoma	
		Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
	Note: interstitial cell hyperplasia accounts for discoloration in 1 testis.		
	[Adenoma TGLS = 7-11]		
	[Hyperplasia TGLS = 7-11]		

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 52

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403312

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Hepatocyte	Atypia Cellular	Minimal
		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Histiocytic Sarcoma	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
Note: focal hepatocellular atypia observed on slide 6. [Histiocytic Sarcoma TGLS = 2-14]			
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 52

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403312

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1-11]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 53	TRT#: 3	SEX: Male	DAY ON TEST: 384
	DOSE: 2 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403313

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex	Vacuolization Cytoplasmic	Mild
Note: 1 adrenal gland missing.		
* Bone Marrow	Hyperplasia	Marked
* Intestine Large, Rectum	Parasite Metazoan	
* Kidney	Mesenchymal Tumor Malignant	
	Mineralization	Minimal
Note: suspect transitional cell origin (poorly differentiated) and apposes small section of pancreas in slide 6 (non-invasive). [Mesenchymal Tumor Malignant TGLS = 1-14]		
* Liver	Hematopoietic Cell Proliferation	Minimal
* Pancreas		
Note: Suspect Renal Mesenchymal Tumor apposing Pancreas (slide 06); originating from primary tumor (slide 14).		
* Pituitary Gland	Pars Distalis	Adenoma

PRIMARY CAUSE OF DEATH - Kidney Mesenchymal Tumor Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 54

TRT#: 3

SEX: Male

DAY ON TEST: 688

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403314

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone			
Note: TGL1 coded as skin.			
* Eye			
Note: very small segment of optic nerve in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Mammary GI			
Note: MFH infiltrating along subcutis of mammary gland section (slide 12); originating from TGL1.			
* Pancreas	Acinus	Atrophy	Minimal
* Preputial GI			
Note: MFH observed in peripreputial (subcutaneous) connective tissue.			
* Prostate		Inflammation	Minimal
* Skin	Subcut Tiss	Fibrous Histiocytoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 54

TRT#: 3

SEX: Male

DAY ON TEST: 688

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403314

ORGAN AND ACCOUNTABLE SITE STATUS

Note: TGL1: fibrous histiocytoma extends into skin-SOA.

[Fibrous Histiocytoma TGLS = 1,2,3-14+15+16]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 4-11]

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Fibrous Histiocytoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 55

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403315

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-14]			
* Prostate		Adenoma	
	Epithelium	Hyperplasia	Mild
		Inflammation	Mild
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-11]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 55

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403315

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 56

TRT#: 3

SEX: Male

DAY ON TEST: 574

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403316

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Eye	Retina	Dysplasia	Minimal
Note: optic nerve missing.			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Intestine Small, Jejunum		Leiomyoma	
[Leiomyoma TGLS = 1-14]			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6+7]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 56	TRT#: 3	SEX: Male	DAY ON TEST: 574
	DOSE: 2 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403316

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 2-5]

* Testes	Bilateral, Interstit Cell	Adenoma
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PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Intestine Small;Jejunum Leiomyoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 57

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403317

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Brain		Hydrocephalus	Mild
* Heart		Cardiomyopathy	Moderate
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
* Nose		Inflammation	Mild
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 1-14]	
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Minimal
* Testes	Interstit Cell	Adenoma	
		Atrophy	Mild

Note: interstitial cell adenoma noted in one testis.

[Adenoma TGLS = 2-11]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 57	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403317
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ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 58

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403318

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Eye			
Note: optic nerve missing.			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Adenoma	
[Adenoma TGLS = 2-14]			
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 58

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403318

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 59

TRT#: 3

SEX: Male

DAY ON TEST: 541

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403319

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Marked
* Brain		Hemorrhage	Moderate
Note: hemorrhage in cerebrum and cerebellum. [Hemorrhage TGLS = 5-9]			
* Eye			
Note: optic nerve not found.			
* Kidney		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[Hepatodiaphragmatic Nodule TGLS = 1-15] [Leukemia Mononuclear TGLS = 2-6+7+15]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Spleen		Infarct	Moderate
		Leukemia Mononuclear	
[Infarct TGLS = 4-5]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 59	TRT#: 3	SEX: Male	DAY ON TEST: 541
	DOSE: 2 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403319

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 3-5]			
* Stomach, Forestomach		Inflammation Ulcer	Mild Moderate
[Ulcer TGLS = 6-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 60

TRT#: 3

SEX: Male

DAY ON TEST: 525

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403320

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Marked
* Eye			
Note: optic nerve found on brain slide 9.			
* Harderian Gland		Adenoma	
		Inflammation	Moderate
Note: adenoma is pigmented.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland	Bilateral	Adenoma	
[Adenoma TGLS = 1-12+14]			
* Prostate		Inflammation	Mild
* Testes	Interstit Cell	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 60

TRT#: 3

SEX: Male

DAY ON TEST: 525

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403320

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Preputial Gland Bilateral Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 61

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403321

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lung	* Lymph Node, Mesenteric	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Eye	Retina	Atrophy	Marked
		Cataract	Mild
		Synechia	Mild
		[Cataract TGLS = 1-10]	
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Mammary Gland		Adenoma	
		Hyperplasia	Marked
		[Adenoma TGLS = 3-14]	
		[Hyperplasia TGLS = 3-12+14]	
* Nose		Inflammation	Moderate
* Pancreas	Acinus	Atrophy	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 61	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403321
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [Adenoma TGLS = 4-8]	Pars Distalis	Adenoma	
* Prostate		Inflammation	Mild
* Skin Note: TGL3 coded as mammary gland.			
* Testes [Adenoma TGLS = 2-11]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 62

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403322

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Hydronephrosis	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperplasia	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 63

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403323

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Eye		Synechia	Minimal
Note: optic nerve not found.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
[Alveolar/Bronchiolar Adenoma TGLS = 2-14]			
* Pancreas		Adenoma	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 3-15]			
* Stomach, Glandular	Glands	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 63	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403323
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ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 1-11]	Bilateral, Interstit Cell	Inflammation Adenoma	Minimal
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PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 64

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403324

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-14]			
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin	Hair Follicle	Cyst	
	SOA Epidermis	Hyperkeratosis	Minimal
[Cyst TGLS = 1-15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-11]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 64

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403324

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 65

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403325

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia Leukemia Mononuclear	Moderate
Blood Vessel			
Note: MCL noted in periaortic fat. Aorta is normal.			
* Bone Marrow		Hyperplasia	Marked
* Eye	Retina	Atrophy Retinal Detachment	Moderate Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Moderate
		[Leukemia Mononuclear TGLS = 4-6+7]	
* Lung		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 7-3+4]	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 6-6]	
* Nose		Inflammation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 65	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403325
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Marked
		Leukemia Mononuclear	
[Cyst TGLS = 2-8]			
* Prostate	Epithelium	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-5]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 5-11]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 66

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403326

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Brain		Meningioma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Adenoma	
Note: TGL3 coded as mammary gland.			
[Adenoma TGLS = 3-14]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-14]			
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Marked
	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 66	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403326
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ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild

[Adenoma TGLS = 1-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 67

TRT#: 3

SEX: Male

DAY ON TEST: 582

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403327

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Eye			
Note: optic nerve not found.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 68

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403328

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Hyperplasia	Mild
		[Hyperplasia TGLS = 1-12]	
* Spleen		Hyperplasia	Lymphoid, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
		[Adenoma TGLS = 2-11]	
* Thymus			
		Note: thymus (very small section) noted on slide 3.	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 68

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403328

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 69

TRT#: 3

SEX: Male

DAY ON TEST: 519

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403329

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
* Lung		Inflammation	Minimal
		Leukemia Mononuclear	
Lymph Node	Mediastinal	Schwannoma Malignant	Metastatic (Skin)
	[Schwannoma Malignant TGLS = 3-15]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Moderate
	Note: rest of cells from Rathkes pouch located in pars nervosa.		
* Skin	Subcut Tiss	Schwannoma Malignant	
	Note: TGL1 coded as skin.		
	[Schwannoma Malignant TGLS = 1-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 69	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 519 HISTO: 0403329
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ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 2-5]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 4-16]	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	- Skin Subcut Tiss Schwannoma Malignant		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 70

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403330

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Prostate		Inflammation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-14]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 71

TRT#: 3

SEX: Male

DAY ON TEST: 506

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403331

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Bone	Rib	Osteosarcoma	
	[Osteosarcoma TGLS = 1-14]		
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Mild
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

- Bone Rib Osteosarcoma

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:21

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 72

TRT#: 3

SEX: Male

DAY ON TEST: 672

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403332

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Leukemia Mononuclear	
Blood Vessel			
Note: MCL observed in periaortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Int Lg Rectum			
Note: MCL observed in mesenteric fat.			
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-17]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-6+18]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 6-16]			
* Nose		Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 72	TRT#: 3	SEX: Male	DAY ON TEST: 672
	DOSE: 2 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403332

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 1-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-15]			
* Stomach, Forestomach		Inflammation	Moderate
		Ulcer	Marked
* Testes	Interstit Cell	Adenoma	
[Adenoma TGLS = 5-11]			
* Thymus		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-14]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 73

TRT#: 3

SEX: Male

DAY ON TEST: 433

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403333

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6+14]		
* Pancreas	Acinus	Atrophy	Minimal
* Prostate		Inflammation	Moderate
* Spleen		Hemorrhage	Moderate
		Leukemia Mononuclear	
	Note: capsule ruptured with hemorrhage.		
	[Leukemia Mononuclear TGLS = 1-5]		
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus			
	Note: MCL found in perithymic lymph node.		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 73

TRT#: 3

SEX: Male

DAY ON TEST: 433

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403333

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 74

TRT#: 3

SEX: Male

DAY ON TEST: 605

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403334

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Brain		Hydrocephalus	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-14]		
* Prostate		Inflammation	Moderate
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-14]		
* Testes		Atrophy	Marked
	[Atrophy TGLS = 4-11]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 74

TRT#: 3

SEX: Male

DAY ON TEST: 605

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403334

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 75

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403335

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	Coagulating Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Mesothelioma Malignant	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mesenteric			
* Pancreas			
Note: pancreas associated with duodenum.			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Adenoma	
* Skin	Subcut Tiss	Fibroma	
	SOA Epidermis	Hyperkeratosis	Minimal

[Fibroma TGLS = 1-15]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 75

TRT#: 3
DOSE: 2 MG/KG

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403335

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 2-5]		Leukemia Mononuclear
* Testes [Adenoma TGLS = 3-14]	Bilateral, Interstit Cell	Adenoma Mesothelioma Malignant

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 76	TRT#: 3	SEX: Male	DAY ON TEST: 688
	DOSE: 2 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403336

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	Coagulating Gland
Ear	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2,3-6+7+15]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-14]		
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	[Hyperkeratosis TGLS = 1-11]		
* Spleen		Leukemia Mononuclear	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal

Note: TGL5 = interstitial cell tumor (ICT) in one testis and interstitial cell hyperplasia in the contralateral testis.

[Adenoma TGLS = 5-11]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 76	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 688 HISTO: 0403336
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ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 5-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 77

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403337

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 2-14]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 1-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:21
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 77	TRT#: 3	SEX: Male	DAY ON TEST: 729
	DOSE: 2 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403337

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 78

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403338

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung			
Note: lung airways collapsed.			
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-11]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 78

TRT#: 3

DOSE: 2 MG/KG

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 728

HISTO: 0403338

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 79

TRT#: 3

SEX: Male

DAY ON TEST: 547

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403339

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-8]		
* Prostate		Inflammation	Mild
* Testes	Interstit Cell	Hyperplasia	Minimal
* Trachea			

Note: dilated submucosal glands.

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 80

TRT#: 3

SEX: Male

DAY ON TEST: 679

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403340

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Moderate
* Islets, Pancreatic		Hyperplasia	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Degeneration	Cystic, Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 2-14]		
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Mild
	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-8]		
* Prostate		Inflammation	Moderate
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 80

TRT#: 3

SEX: Male

DAY ON TEST: 679

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403340

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 81

TRT#: 3
DOSE: 2 MG/KG

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 728
HISTO: 0403341

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Pancreas	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Clear Cell Focus	
		Inflammation	Mild
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-14]			
* Nose		Inflammation	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 82

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403342

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Moderate
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 83

TRT#: 3

SEX: Male

DAY ON TEST: 500

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403343

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Adenoma	
[Adenoma TGLS = 2-15]			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 1-14]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate		Inflammation	Mild
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

- Intestine Large, Colon Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 84

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403344

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 4-17]			
* Pancreas	Acinus	Atrophy	Minimal
	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-16]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Skin		Basal Cell Adenoma	
	SOA Epidermis	Hyperkeratosis	Minimal
[Basal Cell Adenoma TGLS = 1-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 84

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403344

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 3-11, 2-15]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 85

TRT#: 3

SEX: Male

DAY ON TEST: 569

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403345

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7,8-6+7+18]		
* Lung	Alveolar Epith	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node			
	Note: interstitial cell adenoma only found in 1 testis.		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
	[Hyperplasia TGLS = 1-14]		
* Preputial GI			
	Note: cystic duct with inflammation.		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 85	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Natural Death	DAY ON TEST: 569 HISTO: 0403345
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ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate	Epithelium	Hyperplasia Inflammation	Minimal Minimal
* Spleen		Infarct Leukemia Mononuclear	Moderate
	[Infarct TGLS = 4,5-16+17] [Leukemia Mononuclear TGLS = 2-15+16+17]		
* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
	Note: TGL3 = ICT in one testis and interstitial cell hyperplasia in the other testis. [Adenoma TGLS = 3-11] [Hyperplasia TGLS = 3-11]		
* Thyroid Gland		Hemorrhage Thrombosis	Mild Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 86 TRT#: 3 SEX: Male DAY ON TEST: 728
DOSE: 2 MG/KG DISP: Terminal Sacrifice HISTO: 0403346

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	Coagulating Gland
Ear	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign Pheochromocytoma Malignant	
Note: left adrenal gland = a malignant pheochromocytoma. Right adrenal gland = benign pheochromocytoma. [Pheochromocytoma Malignant TGLS = 4-15]			
* Bone Marrow		Hyperplasia	Marked
* Brain		Hemorrhage	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hepatodiaphragmatic Nodule	
		Hyperplasia	Minimal
		Leukemia Mononuclear	
[Hepatodiaphragmatic Nodule TGLS = 5-16]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Pheochromocytoma Malignant	Metastatic (Adrenal Medulla)
Note: slide 4 contains pheochromocytoma emboli.			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 6-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 86	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403346
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ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Moderate
* Pituitary Gland [Adenoma TGLS = 1-8]	Pars Distalis	Adenoma	
* Prostate	Epithelium	Hyperplasia Inflammation	Minimal Mild
* Spleen [Leukemia Mononuclear TGLS = 2-5]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 3-11]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 87

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403347

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Minimal
* Harderian Gland		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Moderate
* Testes	Interstitial Cell	Adenoma	
	Interstitial Cell	Hyperplasia	Mild

Note: TGL1 = ICT in one testis and interstitial cell hyperplasia in the other.

[Adenoma TGLS = 1-11]

[Hyperplasia TGLS = 1-11]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 87

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403347

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 88

TRT#: 3

SEX: Male

DAY ON TEST: 629

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403348

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-14]		
* Skin	Subcut Tiss	Fibroma	
	Note: TGL1 coded as skin. TGL2 = NCL.		
	[Fibroma TGLS = 1-14]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 3-11]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 88

TRT#: 3

DOSE: 2 MG/KG

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 629

HISTO: 0403348

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 89

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403349

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Adenoma	
		Hyperplasia	Moderate
Note: TGL3 = mammary tumor/hyperplasia. The skin appears normal. [Adenoma TGLS = 3-14] [Hyperplasia TGLS = 3-14]			
* Nose		Inflammation	Moderate
Note: nasal inflammation associated with foreign (forage) material in region of mucosal hyperplasia (slide 2).			
* Pituitary Gland	Pars Distalis	Adenoma	
			[Adenoma TGLS = 2-15]
* Prostate	Epithelium	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 89	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403349
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ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	SOA Epidermis	Inflammation	Mild
	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-14]			
* Testes	Interstit Cell	Adenoma	
		Atrophy	Mild
	Interstit Cell	Hyperplasia	Mild
Note: TGL4 = ICT in one testis and interstitial cell hyperplasia in the other.			
[Adenoma TGLS = 4-11]			
[Hyperplasia TGLS = 4-11]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 90

TRT#: 3

SEX: Male

DAY ON TEST: 486

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403350

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Moderate
* Brain		Hemorrhage	Mild
		Leukemia Mononuclear	
Note: hemorrhage associated with MCL.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6+7+14]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Thrombosis	Moderate
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 90

TRT#: 3

SEX: Male

DAY ON TEST: 486

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403350

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 91

TRT#: 3

SEX: Male

DAY ON TEST: 601

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403351

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-14]			
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Prostate		Inflammation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 1-11]			
* Thymus			

Note: few thymic lymphoid cells observed.

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 91

TRT#: 3

SEX: Male

DAY ON TEST: 601

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403351

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 92

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403352

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Eye			
Note: optic nerve found in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Cyst	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-14]			
* Prostate	Epithelium	Hyperplasia	Minimal
* Stomach, Glandular		Inflammation	Minimal
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 93

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403353

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Epididymis		Inflammation	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[Hepatodiaphragmatic Nodule TGLS = 2-14]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Ectasia	Mild
* Pancreas	Acinus	Atrophy	Mild
	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
* Prostate	Epithelium	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 93	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403353
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ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 1-11]	Bilateral, Interstit Cell	Inflammation Adenoma	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH	-
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 94

TRT#: 3

SEX: Male

DAY ON TEST: 286

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403354

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Seminal Vesicle	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Kidney		Mineralization	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Prostate		Inflammation	Moderate
* Salivary Glands		Inflammation	Mild
Note: inflammation an extension of zymbals gland tumor.			
* Testes		Atrophy	Minimal
* Thymus			
Note: perithymic lymph nodes exhibit lymphoid hyperplasia.			
Zymbal's Gland		Carcinoma	
[Carcinoma TGLS = 1-14]			

PRIMARY CAUSE OF DEATH

- Zymbal's Gland Carcinoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 95

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403355

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6+7]		
Lymph Node	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-14]		
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Moderate
* Skin	Subcut Tiss	Fibroma	
	Note: TGL1 coded as skin.		
	[Fibroma TGLS = 1-14]		
* Spleen		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 2-11]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 95

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403355

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 96

TRT#: 3

SEX: Male

DAY ON TEST: 558

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403356

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Brain		Hemorrhage	Moderate
Note: hemorrhage suspected attributable to pituitary adenoma.			
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 2-14]			
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 97

TRT#: 3

SEX: Male

DAY ON TEST: 688

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403357

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Mild
		[Leukemia Mononuclear TGLS = 2-6+7]	
* Lung		Leukemia Mononuclear	
Lymph Node	Renal	Leukemia Mononuclear	
		Note: pancreas observed apposing node.	
		[Leukemia Mononuclear TGLS = 3-14]	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 4-6]	
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 97	TRT#: 3 DOSE: 2 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 688 HISTO: 0403357
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ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 5-8]			
* Prostate		Inflammation	Mild
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-5]			
* Testes	Interstit Cell	Hyperplasia	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 98

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403358

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 3-14]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Adenoma	
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-8]		
* Preputial Gland		Adenoma	
	[Adenoma TGLS = 1-15]		
* Prostate	Epithelium	Hyperplasia	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 98	TRT#: 3	SEX: Male	DAY ON TEST: 728
	DOSE: 2 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403358

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-14]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 99	TRT#: 3	SEX: Male	DAY ON TEST: 728
	DOSE: 2 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403359

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Adenoma	
Note: TGL1 = adenoma of preputial gland origin. Mammary gland appears normal. [Adenoma TGLS = 1-14]			
* Prostate	Epithelium	Hyperplasia	Minimal
* Testes	Interstitial Cell	Adenoma	
		Atrophy	Marked
	Interstitial Cell	Hyperplasia	Minimal
[Atrophy TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 100

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403360

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Hydronephrosis	Mild
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Marked
* Nose		Inflammation	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-8]		
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperplasia	Minimal
* Testes	Interstit Cell	Adenoma	
		Atrophy	Marked
	[Adenoma TGLS = 2-11]		
	[Atrophy TGLS = 3-11]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 100

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403360

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 101

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403361

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Eye			
Note: Optic nerve found in slide 9 (brain section).			
* Heart		Cardiomyopathy	Moderate
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
[Hyperkeratosis TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 101	TRT#: 5	SEX: Male	DAY ON TEST: 728
	DOSE: 6 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403361

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-11]		
* Thyroid Gland	C Cell	Adenoma
[Adenoma TGLS = 3-14]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 102

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403362

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Minimal
* Epididymis		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Mild
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
		[Hyperplasia TGLS = 1-11]	
* Testes	Bilateral, Interstit Cell	Adenoma	
		[Adenoma TGLS = 2-11]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 102	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403362
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ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	C Cell	Hyperplasia	Minimal
	Follicular Cel	Hyperplasia	Minimal

* Trachea

Note: Bacteria and forage fibers noted in tracheal lumen.

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 103

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403363

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Mammary GI			
Note: TGL2 coded as skin.			
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Prostate		Inflammation	Mild
* Skin	Subcut Tiss	Fibroma	
	SOA Epidermis	Hyperkeratosis	Mild
[Fibroma TGLS = 2-15]			
[Hyperkeratosis TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 103

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403363

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 3-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 104

TRT#: 5

SEX: Male

DAY ON TEST: 631

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403364

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	Tissue NOS	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
		Leukemia Mononuclear	
* Lymph Node, Mesenteric			
* Mammary GI			
Note: TGL2 coded as skin.			
* Nose		Fibrosis	Mild
		Inflammation	Mild
Note: Fibrosis of submucosa near nasopalatine (incisive) duct on slide 2.			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	Subcut Tiss	Fibroma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 104	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 631 HISTO: 0403364
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ORGAN AND ACCOUNTABLE SITE STATUS

SOA Epidermis	Hyperkeratosis	Mild
SOA Epidermis	Hyperplasia	Minimal
SOA Dermis	Inflammation	Minimal

Note: TGL2 coded as skin.

[Fibroma TGLS = 2-14]

[Hyperplasia TGLS = 1-11]

* Spleen

[Leukemia Mononuclear TGLS = 3-15]

* Testes

[Adenoma TGLS = 4-11]

Leukemia Mononuclear

Bilateral, Interstit Cell

Adenoma

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 105

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403365

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	[Hyperplasia TGLS = 1-11]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 2-11]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 105

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403365

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 106

TRT#: 5

SEX: Male

DAY ON TEST: 691

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403366

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Brain		Hemorrhage	Mild
		Leukemia Mononuclear	
Note: Focal hemorrhage (cerebrum) associated with necrosis.			
* Eye			
Note: Optic nerve found in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6+7]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal, Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-16, 4-18]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-17]			
* Nose		Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 106	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 691 HISTO: 0403366
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia Leukemia Mononuclear	Moderate
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis Subcut Tiss	Hyperkeratosis Sarcoma	Mild
[Sarcoma TGLS = 7-15]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-5]			
* Stomach, Forestomach		Ulcer	Moderate
* Testes	Interstit Cell	Adenoma Atrophy	Moderate
	Interstit Cell	Hyperplasia Inflammation	Mild Mild
[Adenoma TGLS = 2-14]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 107

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403367

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 5-15]		
* Lung		Inflammation	Mild
* Mammary Gland		Inflammation	Minimal
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 3,4-14]		
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 107	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403367
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ORGAN AND ACCOUNTABLE SITE STATUS

	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 108

TRT#: 5

SEX: Male

DAY ON TEST: 584

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403368

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Eye			
Note: Optic nerve noted in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
		Necrosis	Moderate
Mesentery			
[Necrosis TGLS = 3-14]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 1-11]			
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 108	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 584 HISTO: 0403368
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ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 4-11] * Thyroid Gland Zymbal's Gland Note: Tumor extensively ulcerated. [Adenoma TGLS = 2-15]	Interstit Cell C Cell	Hyperplasia Hyperplasia Adenoma	Mild Minimal
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PRIMARY CAUSE OF DEATH	- Zymbal's Gland Adenoma
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 109

TRT#: 5

SEX: Male

DAY ON TEST: 645

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403369

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Pheochromocytoma Benign	
Note: Central necrosis/mineralization found in tumor. [Pheochromocytoma Benign TGLS = 5-8]			
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Mixed Cell Focus	
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pancreas	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 1-11]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 109

TRT#: 5
DOSE: 6 MG/KG

SEX: Male
DISP: Natural Death

DAY ON TEST: 645
HISTO: 0403369

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Bilateral, Interstit Cell	Adenoma
[Adenoma TGLS = 2-11]		

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 110

TRT#: 5

SEX: Male

DAY ON TEST: 503

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403370

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6+7]		
* Lung	Alveolus	Hemorrhage	Mild
		Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
	[Hemorrhage TGLS = 5-3+4]		
Lymph Node	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-16]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 6-15]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-8]		
* Prostate		Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 110	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Natural Death	DAY ON TEST: 503 HISTO: 0403370
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ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	SOA Epidermis	Hyperkeratosis	Mild
* Spleen		Hemorrhage Leukemia Mononuclear	Marked
	[Hemorrhage TGLS = 2-14] [Leukemia Mononuclear TGLS = 3-14]		
* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 111

TRT#: 5

SEX: Male

DAY ON TEST: 582

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403371

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Harderian Gland	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Brain		Hemorrhage Leukemia Mononuclear	Moderate
[Hemorrhage TGLS = 7-17]			
* Eye	Retina	Atrophy Cataract	Marked Marked
[Cataract TGLS = 1-14]			
* Kidney		Leukemia Mononuclear	
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Minimal
[Leukemia Mononuclear TGLS = 4-6+7]			
* Lung		Inflammation Leukemia Mononuclear	Mild
Note: Inflammation sometimes associated with eosinophilic crystals, hemorrhage and/or pneumocyte hyperplasia.			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-15]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 111	TRT#: 5	SEX: Male	DAY ON TEST: 582
	DOSE: 6 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403371

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperkeratosis TGLS = 2-11]			
* Spleen		Hemorrhage Leukemia Mononuclear	Moderate
[Hemorrhage TGLS = 5-16]			
[Leukemia Mononuclear TGLS = 3-15]			
* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia Leukemia Mononuclear	Mild
* Thymus			
PRIMARY CAUSE OF DEATH	- Spleen	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 112

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403372

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Moderate
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6+7+14, 4-14]		
* Lung		Alveolar/Bronchiolar Adenoma	
		Inflammation	Mild
		Leukemia Mononuclear	
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-15]		
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperkeratosis TGLS = 1-11]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 112	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403372
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ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 5-5]		Leukemia Mononuclear	
* Testes	Interstit Cell	Hyperplasia	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 113

TRT#: 5

SEX: Male

DAY ON TEST: 702

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403373

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
		Mixed Cell Focus	
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung		Inflammation	Mild
		Leukemia Mononuclear	
	Note: Interstitial inflammation.		
* Nose		Inflammation	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Adenoma	
	[Adenoma TGLS = 1-14]		
* Prostate		Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 113	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 702 HISTO: 0403373
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ORGAN AND ACCOUNTABLE SITE STATUS

* Skin [Hyperkeratosis TGLS = 4-11]	SOA Epidermis	Hyperkeratosis	Minimal
* Spleen [Leukemia Mononuclear TGLS = 2-5]		Leukemia Mononuclear	
* Stomach, Forestomach	Epithelium	Hyperplasia	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 114

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403374

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Mild
[Adenoma TGLS = 3-14]			
* Preputial Gland		Adenoma	
		Hyperplasia	Minimal
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 114	TRT#: 5	SEX: Male	DAY ON TEST: 728
	DOSE: 6 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403374

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperkeratosis TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 115

TRT#: 5

SEX: Male

DAY ON TEST: 699

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403375

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney	Transit Epithe	Hyperplasia	Mild
		Nephropathy	Marked
* Liver		Fatty Change	Moderate
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-8]		
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	[Hyperkeratosis TGLS = 1-11]		
* Stomach, Forestomach	Epithelium	Hyperplasia	Moderate
		Inflammation	Moderate
		Ulcer	Marked
	[Ulcer TGLS = 4-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 115

TRT#: 5
DOSE: 6 MG/KG

SEX: Male
DISP: Moribund Sacrifice

DAY ON TEST: 699
HISTO: 0403375

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 2-11]	Bilateral, Interstit Cell	Adenoma
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PRIMARY CAUSE OF DEATH	- Kidney Nephropathy
CONTRIBUTORY CAUSE OF DEATH	- Stomach;Forestomach Ulcer

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 116

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403376

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Moderate
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3,4-6+7+14]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperkeratosis TGLS = 1-11]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-5]		
* Testes	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 116

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403376

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 117

TRT#: 5

SEX: Male

DAY ON TEST: 545

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403377

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain		Hemorrhage	Moderate
[Hemorrhage TGLS = 3-9+14]			
* Eye			
Note: Optic nerve in slide 9.			
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
[Adenoma TGLS = 2-6+14]			
* Kidney		Mineralization	Minimal
* Liver		Degeneration	Cystic, Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Prostate		Inflammation	Mild
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 118

TRT#: 5

SEX: Male

DAY ON TEST: 612

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403378

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Mammary Gland
--------------------------	-----------------

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 5-14]			
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-17]			
* Preputial Gland		Adenoma	
[Adenoma TGLS = 4-15]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 2-11]			
* Spleen		Hyperplasia	Lymphoid, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 118

TRT#: 5

SEX: Male

DAY ON TEST: 612

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403378

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 3-16]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-11]

PRIMARY CAUSE OF DEATH

- Preputial Gland Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 119

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403379

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Adenoma	
[Adenoma TGLS = 4-15]			
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
[Hyperkeratosis TGLS = 1-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 119

TRT#: 5
DOSE: 6 MG/KG

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 728
HISTO: 0403379

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 120

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403380

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Ganglioneuroma	
		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose			
Note: Moderate inflammation noted in lateral sinus.			
* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperplasia	Mild
[Hyperplasia TGLS = 1-11]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 120

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403380

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 121

TRT#: 5

SEX: Male

DAY ON TEST: 717

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403381

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Eye			
Note: Optic nerve missing.			
* Heart		Cardiomyopathy	Moderate
* Kidney		Cyst	Mild
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 3-14]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose			
Note: Inflammation, lateral sinus.			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-8]			
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 121	TRT#: 5	SEX: Male	DAY ON TEST: 717
	DOSE: 6 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403381

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 122

TRT#: 5

SEX: Male

DAY ON TEST: 665

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403382

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
	Atrium	Thrombosis	Moderate
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
		Metaplasia	Squamous, Mild
Note: Squamous metaplasia on slide 3.			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Adenoma	
* Prostate		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 122

TRT#: 5

SEX: Male

DAY ON TEST: 665

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403382

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperkeratosis TGLS = 3-14]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-14]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 1-11]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 123

TRT#: 5

SEX: Male

DAY ON TEST: 653

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403383

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Marked
* Epididymis		Mesothelioma Malignant	
	[Mesothelioma Malignant TGLS = 1-16+17]		
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-6+7]		
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Infiltration Cellular	Histiocyte, Marked
	Note: pigment laden macrophages expand sinuses.		
	[Infiltration Cellular TGLS = 5-15]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary GI			
	Note: Mesothelioma apposing skeletal muscle (peritoneum).		
Mesentery		Mesothelioma Malignant	
	[Mesothelioma Malignant TGLS = 2-14]		
* Pancreas	Acinus	Atrophy	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 123	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 653 HISTO: 0403383
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
[Hyperkeratosis TGLS = 4-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-11]			

PRIMARY CAUSE OF DEATH	- Epididymis Mesothelioma Malignant
CONTRIBUTORY CAUSE OF DEATH	- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 124

TRT#: 5

SEX: Male

DAY ON TEST: 666

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403384

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone			
Note: knee joint synovial cell hyperplasia.			
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Necrosis	Moderate
Mesentery			
[Necrosis TGLS = 4-14]			
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Prostate		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 1-11]			
* Testes	Interstit Cell	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 124

TRT#: 5
DOSE: 6 MG/KG

SEX: Male
DISP: Moribund Sacrifice

DAY ON TEST: 666
HISTO: 0403384

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 125

TRT#: 5

SEX: Male

DAY ON TEST: 724

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403385

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Cyst	Moderate
		Nephropathy	Minimal
[Cyst TGLS = 7-5]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
* Mammary GI			
Note: TGL2 coded as skin.			
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Adenoma	
Note: grossly, the right preputial gland was fused with tumor of the left gland (adenoma).			
[Adenoma TGLS = 3-12]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	Subcut Tiss	Fibroma	
	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 125

TRT#: 5

SEX: Male

DAY ON TEST: 724

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403385

ORGAN AND ACCOUNTABLE SITE STATUS

Note: TGL2 coded as skin.

[Fibroma TGLS = 2-15]

[Hyperplasia TGLS = 1-14]

* Spleen

Hyperplasia

Lymphoid, Moderate

[Hyperplasia TGLS = 6-5]

* Testes

Bilateral, Interstit Cell

Adenoma

Interstit Cell

Adenoma

[Adenoma TGLS = 4-11]

Tooth

Peridont Tiss

Malformation

Note: epithelial cyst.

PRIMARY CAUSE OF DEATH

- Preputial Gland Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 126

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403386

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Moderate
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-8]		
* Prostate		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	[Hyperkeratosis TGLS = 1-14]		
* Testes	Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 126	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403386
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ORGAN AND ACCOUNTABLE SITE STATUS

		Atrophy	Minimal
	Interstit Cell	Hyperplasia	Minimal
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 127

TRT#: 5

SEX: Male

DAY ON TEST: 490

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403387

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Moderate
* Brain		Hemorrhage	Moderate
[Hemorrhage TGLS = 5-9]			
* Epididymis		Mesothelioma Benign	
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Minimal
[Leukemia Mononuclear TGLS = 2-6+7]			
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-8]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia Leukemia Mononuclear	Minimal
* Prostate		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 127	TRT#: 5	SEX: Male	DAY ON TEST: 490
	DOSE: 6 MG/KG	DISP: Natural Death	HISTO: 0403387

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1,3-14+15]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
* Thymus		Leukemia Mononuclear	
* Thyroid GI			
Note: TGL4 coded as deep cervical lymph node.			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 128

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403388

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Mild
* Liver	Bile Duct	Clear Cell Focus	
		Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Moderate
* Prostate		Inflammation	Mild
* Skin		Basal Cell Adenoma	
	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	[Basal Cell Adenoma TGLS = 2-14]		
	[Hyperplasia TGLS = 1-14]		
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 128

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403388

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 3-11]

* Thyroid Gland

C Cell

Hyperplasia

Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 129

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403389

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
Note: Raft of atypical cells (suspected mesothelial) apposing capsule of HDN (slide 14). [Hepatodiaphragmatic Nodule TGLS = 4-14]			
Mesentery		Necrosis	Moderate
* Nose		Inflammation	Moderate
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperkeratosis TGLS = 1-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 129	TRT#: 5	SEX: Male	DAY ON TEST: 728
	DOSE: 6 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403389

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hyperplasia	Lymphoid, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 130

TRT#: 5
DOSE: 6 MG/KG

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403390

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-11]	Interstit Cell	Hyperplasia	Minimal
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PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 131

TRT#: 5

SEX: Male

DAY ON TEST: 523

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403391

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain		Hemorrhage	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 1-14]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 132

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403392

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone			
Note: synovial inflammation in knee joint, slide 2.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 3-14]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 1-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 132

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403392

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 133

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403393

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Leukemia Mononuclear	
* Mammary Gland			
Note: TGL1 coded as skin.			
Mesentery		Schwannoma Malignant	
[Schwannoma Malignant TGLS = 4-14]			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate		Inflammation	Mild
* Skin	Subcut Tiss	Fibroma	
	SOA Epidermis	Hyperkeratosis	Mild
[Fibroma TGLS = 1-15]			
[Hyperkeratosis TGLS = 2-16]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-5]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 133

TRT#: 5
DOSE: 6 MG/KG

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403393

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 5-11]	Bilateral, Interstit Cell	Adenoma
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PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 134

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403394

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Lipoma	
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 1-8]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
[Hyperkeratosis TGLS = 2-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-14]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 135

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403395

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Cyst	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Necrosis	Moderate
Mesentery			
[Necrosis TGLS = 3-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 135

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403395

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 136

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403396

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-16]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-15]			
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 136	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403396
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ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperkeratosis TGLS = 1-14]	SOA Dermis	Inflammation	Minimal
* Spleen [Leukemia Mononuclear TGLS = 4-16]		Leukemia Mononuclear	
* Testes [Adenoma TGLS = 2-11]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 137

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403397

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
		[Hyperplasia TGLS = 3-6+7]	
		[Hypertrophy TGLS = 3-6+7]	
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
		[Hyperplasia TGLS = 4-14]	
* Nose		Inflammation	Mild
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 137	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403397
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ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate	Pars Distalis Epithelium	Hyperplasia Hyperplasia Inflammation	Moderate Minimal Mild
* Skin [Hyperkeratosis TGLS = 1-14]	SOA Epidermis	Hyperkeratosis	Minimal
* Spleen		Hyperplasia	Lymphoid, Mild
* Testes [Adenoma TGLS = 2-11]	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 138

TRT#: 5

SEX: Male

DAY ON TEST: 325

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403398

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Brain		Hemorrhage	Moderate
[Hemorrhage TGLS = 3,4-9]			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver		Hepatodiaphragmatic Nodule	
[Hepatodiaphragmatic Nodule TGLS = 2-14]			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Brain Hemorrhage

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 139

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403399

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Islets, Pancreatic		Adenoma	
		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Nose		Inflammation	Moderate
* Pancreas	Acinus	Atrophy	Mild
	Duct	Cyst	Mild
* Prostate	Epithelium	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Dermis	Inflammation	Minimal
		[Hyperkeratosis TGLS = 1-14]	
* Testes	Bilateral, Interstit Cell	Adenoma	
		[Adenoma TGLS = 2-11]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 139

TRT#: 5
DOSE: 6 MG/KG

SEX: Male
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403399

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 140

TRT#: 5

SEX: Male

DAY ON TEST: 570

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403400

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6+7+15]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
	[Adenoma TGLS = 5-8]		
* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	[Hyperkeratosis TGLS = 3-14]		
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 140

TRT#: 5

SEX: Male

DAY ON TEST: 570

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403400

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-14]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-11]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 141

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403401

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Eye	Retina	Dysplasia	Mild
* Heart		Cardiomyopathy	Moderate
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 6-17]		
* Lung		Leukemia Mononuclear	
Lymph Node	Lumbar	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-18]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 8-6+16]		
* Mammary GI			
Note: TGL1 coded as skin.			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 141

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403401

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Moderate
* Pancreas	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 5-15]			
* Prostate		Inflammation	Moderate
* Skin	Subcut Tiss	Fibroma	
	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Dermis	Inflammation	Minimal
Note: TGL1 coded as skin.			
[Fibroma TGLS = 1-14]			
[Hyperkeratosis TGLS = 2-15]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-16]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 3-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 142

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403402

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Moderate
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Mild
		Inflammation	Minimal
* Pancreas	Acinus	Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Dermis	Inflammation	Minimal
	[Hyperkeratosis TGLS = 1-14]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 3-11]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 142

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403402

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 143

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403403

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Epididymis		Mesothelioma Malignant	
* Eye			
Note: optic nerve missing.			
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Hydronephrosis	Mild
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
		Keratoacanthoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 143	TRT#: 5	SEX: Male	DAY ON TEST: 729
	DOSE: 6 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403403

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperkeratosis TGLS = 2-11]			
[Keratoacanthoma TGLS = 1-14]			
* Testes	Bilateral, Interstit Cell	Adenoma Mesothelioma Malignant	
[Adenoma TGLS = 3,4-11+14]			
[Mesothelioma Malignant TGLS = 5-11+16]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 144

TRT#: 5

SEX: Male

DAY ON TEST: 482

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403404

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain		Astrocytoma Malignant	
[Astrocytoma Malignant TGLS = 1-9]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

- Brain Astrocytoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 145

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403405

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-8]		
* Prostate		Adenoma	
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	[Hyperkeratosis TGLS = 1-14]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[Adenoma TGLS = 2-11]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 145

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403405

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 146

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403406

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 1-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 147

TRT#: 5

SEX: Male

DAY ON TEST: 645

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 1-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-15]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Testes	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 148

TRT#: 5

SEX: Male

DAY ON TEST: 629

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403408

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Epididymis		Mesothelioma Malignant	
[Mesothelioma Malignant TGLS = 1-14]			
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Mesothelioma Malignant	Metastatic (Epididymis)
* Intestine Small, Ileum		Mesothelioma Malignant	Metastatic (Epididymis)
* Intestine Small, Jejunum		Mesothelioma Malignant	Metastatic (Epididymis)
* Kidney		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
		Necrosis	Moderate
Note: hepatocyte centrilobular degeneration.			
[Necrosis TGLS = 5-6+7]			
* Mammary GI			
Note: Mesothelioma apposing muscle deep to mammary gland.			
Mesentery		Mesothelioma Malignant	
[Mesothelioma Malignant TGLS = 4-15]			
* Pancreas		Mesothelioma Malignant	Metastatic (Epididymis)
* Prostate		Inflammation	Mild
		Mesothelioma Malignant	Metastatic (Epididymis)

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 148	TRT#: 5 DOSE: 6 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 629 HISTO: 0403408
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ORGAN AND ACCOUNTABLE SITE STATUS

* Seminal Vesicle		Mesothelioma Malignant	Metastatic (Epididymis)
* Skin	SOA Epidermis	Hyperkeratosis	Mild
[Hyperkeratosis TGLS = 3-15]			
* Spleen		Mesothelioma Malignant	Metastatic (Epididymis)
* Testes	Interstit Cell	Adenoma	
		Atrophy	Marked
	Interstit Cell	Hyperplasia	Minimal
	Bilateral	Mesothelioma Malignant	Metastatic (Epididymis)
[Mesothelioma Malignant TGLS = 6-11]			
* Thyroid Gland	C Cell	Adenoma	
* Urinary Bladder		Mesothelioma Malignant	Metastatic (Epididymis)
PRIMARY CAUSE OF DEATH	- Epididymis	Mesothelioma Malignant	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 149

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Dermis	Inflammation	Minimal
		[Hyperkeratosis TGLS = 1-14]	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 150

TRT#: 5

SEX: Male

DAY ON TEST: 679

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403410

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Trachea			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 4-15]		
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-3+4]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	[Hyperkeratosis TGLS = 1-14]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 150

TRT#: 5
DOSE: 6 MG/KG

SEX: Male
DISP: Moribund Sacrifice

DAY ON TEST: 679
HISTO: 0403410

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 6-11]	Bilateral, Interstit Cell	Adenoma
* Thymus		Leukemia Mononuclear
* Thyroid Gland	Follicular Cel	Adenoma
* Urinary Bladder		Leukemia Mononuclear

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 151

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403411

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea			

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Eye			
Note: Optic nerve segments in slide 9.			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Cyst	Minimal
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose		Inflammation	Moderate
* Prostate		Inflammation	Minimal
* Skin	SOA Dermis	Fibrosis	Minimal
	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 151

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403411

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-11]

* Urinary Bladder

Papilloma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 152

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403412

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-14]		
* Lung		Inflammation	Moderate
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Inflammation	Minimal
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 5-15]		
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 6-8]		
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 152	TRT#: 7 DOSE: 18 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 728 HISTO: 0403412
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ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-11]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-5]		
* Testes	Interstit Cell	Adenoma	
		Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
	[Adenoma TGLS = 2-11]		
	[Hyperplasia TGLS = 2-11]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 153

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403413

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone		Osteosclerosis	Mild
Note: focus of reactive trabecular bone (associated with osteoblasts and fibroplasia) observed in the femoral medullary shaft (adjacent to blood filled sinus).			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Lung		Inflammation	Minimal
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Hyperplasia	Mild
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Testes		Atrophy	Minimal
* Thyroid Gl			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 153

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403413

ORGAN AND ACCOUNTABLE SITE STATUS

Note: 1 thyroid gland missing.

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 154

TRT#: 7

SEX: Male

DAY ON TEST: 629

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403414

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
Mesentery		Necrosis	Mild
[Necrosis TGLS = 3-14]			
* Nose		Inflammation	Mild
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Prostate		Inflammation	Moderate
* Skin	SOA Dermis	Fibrosis	Minimal
	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 154	TRT#: 7	SEX: Male	DAY ON TEST: 629
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403414

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-11]	SOA Dermis	Inflammation	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 155

TRT#: 7

SEX: Male

DAY ON TEST: 654

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403415

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-14]			
* Skin		Basal Cell Carcinoma	
	SOA Dermis	Fibrosis	Minimal
	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Basal Cell Carcinoma TGLS = 1-15]			
[Hyperplasia TGLS = 2-11]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 155	TRT#: 7	SEX: Male	DAY ON TEST: 654
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403415

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 3-5]		Leukemia Mononuclear	
* Testes		Atrophy	Minimal
	Interstit Cell	Hyperplasia	Minimal
* Thymus Note: small segment of thymus present.			

PRIMARY CAUSE OF DEATH	- Skin Basal Cell Carcinoma
CONTRIBUTORY CAUSE OF DEATH	- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 156

TRT#: 7

SEX: Male

DAY ON TEST: 721

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
Blood Vessel			
Note: MCL noted in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Brain		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-9]			
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver		Histiocytic Sarcoma	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6+7]			
* Lung		Histiocytic Sarcoma	
		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-14]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pancreas	Acinus	Atrophy	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 156

TRT#: 7

SEX: Male

DAY ON TEST: 721

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403416

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia Leukemia Mononuclear	Mild
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Mild
	SOA Epidermis	Necrosis	Minimal
[Hyperplasia TGLS = 5-11]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-5]			
* Stomach, Forestomach		Ulcer	Mild
* Testes	Interstit Cell	Adenoma	
		Atrophy	Mild
	Interstit Cell	Hyperplasia	Mild
Note: TGL2 = ICT in one testis and interstitial cell hyperplasia in the other testis.			
[Adenoma TGLS = 2-11]			
[Hyperplasia TGLS = 2-11]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH - Brain Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 157

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403417

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Epididymis		Mesothelioma Benign	
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Moderate
* Liver		Inflammation	Minimal
		Mixed Cell Focus	
* Mammary GI			
Note: TGL2 coded as skin.			
* Nose		Inflammation	Mild
* Preputial Gland		Adenoma	
[Adenoma TGLS = 3-14]			
* Skin	Subcut Tiss	Fibroma	
	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
Note: TGL2 coded as skin.			
[Fibroma TGLS = 2-15]			
[Hyperplasia TGLS = 1-16]			
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 157

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403417

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 158

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403418

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Mammary Gland			
Note: TGL2 coded as skin.			
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	Subcut Tiss	Fibroma	
	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal

Note: TGL2 coded as skin.

[Fibroma TGLS = 2-14]

[Hyperplasia TGLS = 1-11]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 158

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403418

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 3-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 159

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403419

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-11]		
* Testes		Atrophy	Minimal
	Interstit Cell	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 159

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403419

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 160

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403420

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Pancreas	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
Note: Large blood filled sinus in femoral medullary cavity.			
* Epididymis		Inflammation	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Necrosis	Mild
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-14]			
* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Stomach, Glandular		Erosion	Minimal
		Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 160	TRT#: 7	SEX: Male	DAY ON TEST: 728
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403420

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes [Adenoma TGLS = 3-11]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 161

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403421

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adren Cortex			
Note: One adrenal gland missing.			
* Adren Medulla			
Note: One adrenal gland missing.			
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[Clear Cell Focus TGLS = 3-6+7]			
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Mild
Lymph Node	Deep Cervical	Ectasia	Moderate
[Ectasia TGLS = 6-14]			
* Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
Note: Hyperplasia of epithelium associated with inflammation.			
* Pituitary Gland	Pars Intermed	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 161	TRT#: 7	SEX: Male	DAY ON TEST: 729
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403421

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 1-8]			
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 5-15]			
* Spleen		Hyperplasia	Lymphoid, Mild
[Hyperplasia TGLS = 2-5]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 4-11]			
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal
[Adenoma TGLS = 7-8]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 162

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403422

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Harderian Gland		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Angiectasis	Minimal
		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 3-14]			
* Prostate		Cyst	Minimal
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 162

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403422

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 163

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403423

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Eye			
Note: optic nerve in slide 9.			
* Heart		Cardiomyopathy	Moderate
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Mammary Gland		Inflammation	Mild
* Nose		Inflammation	Mild
* Pancreas	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Prostate		Inflammation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 163

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403423

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	SOA Dermis	Fibrosis	Minimal
	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 2-14]			
* Testes	Interstit Cell	Adenoma	
		Atrophy	Mild
	Interstit Cell	Hyperplasia	Mild

Note: TGL1 = ICT in one testis and interstitial cell hyperplasia in the other.

[Adenoma TGLS = 1-11]

[Hyperplasia TGLS = 1-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 164

TRT#: 7

SEX: Male

DAY ON TEST: 637

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403424

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Esophagus		Inflammation	Minimal
* Eye			
Note: Optic nerve not found.			
* Heart		Cardiomyopathy	Minimal
	Pericardium	Inflammation	Minimal
Note: TGL4 coded as mediastinal lymph node.			
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Serosa	Fibrosis	Mild
		Inflammation	Moderate
Note: Lung inflammation associated with forage fiber fragments.			
Lymph Node	Mediastinal	Lymphoma Malignant	
Note: TGL4 corresponds to malignant lymphoma of the mediastinal lymph node.			
[Lymphoma Malignant TGLS = 4-14]			
* Lymph Node, Mesenteric		Lymphoma Malignant	
[Lymphoma Malignant TGLS = 5-15]			
* Nose		Inflammation	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 164	TRT#: 7	SEX: Male	DAY ON TEST: 637
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403424

ORGAN AND ACCOUNTABLE SITE STATUS

Note: Nasal inflammation associated with forage fiber fragments.

* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	SOA Epidermis	Necrosis	Minimal
[Hyperplasia TGLS = 1-11]			
* Stomach, Forestomach		Ulcer	Minimal
* Stomach, Glandular		Erosion	Minimal
* Testes			
Note: NCL for TGL3.			
* Thymus		Lymphoma Malignant	

PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma
CONTRIBUTORY CAUSE OF DEATH	- Lymph Node Mediastinal Lymphoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 165

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403425

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Mammary GI			
Note: TGL2 coded as skin.			
Mesentery		Necrosis	Mild
[Necrosis TGLS = 5-14]			
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-8]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 165

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403425

ORGAN AND ACCOUNTABLE SITE STATUS

SOA Epidermis

Hyperplasia

Minimal

SOA Dermis

Inflammation

Minimal

Note: TGL2 coded as skin.

[Hyperplasia TGLS = 1-11]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 3-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 166

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403426

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Harderian Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose		Inflammation	Mild
Note: Inflammation associated with hair fragments.			
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal

[Hyperplasia TGLS = 1-14]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 166

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403426

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-11]

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 167

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403427

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hemorrhage	Mild
* Brain		Infiltration Cellular	Lymphocyte, Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Cyst	Mild
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-14]		
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 167	TRT#: 7 DOSE: 18 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403427
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ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-15]	SOA Dermis	Inflammation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Adenoma	
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 168

TRT#: 7

SEX: Male

DAY ON TEST: 617

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403428

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Brain		Oligodendroglioma Malignant	
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum	Muscularis	Hypertrophy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Basophilic Focus	
		Hyperplasia	Mild
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 5-6+7]	
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Ectasia	Moderate
		Leukemia Mononuclear	
* Nose		Inflammation	Mild

Note: Hair fragments associated with inflammation.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 168	TRT#: 7 DOSE: 18 MG/KG	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: 617 HISTO: 0403428
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11+16]			
* Spleen		Fibrosis	Moderate
		Hemorrhage	Mild
		Leukemia Mononuclear	
[Fibrosis TGLS = 4-15]			
[Hemorrhage TGLS = 4-15]			
[Leukemia Mononuclear TGLS = 3-14+15]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Brain Oligodendroglioma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 169

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403429

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Eye			
Note: Optic nerves noted in brain (slide).			
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
[Adenoma TGLS = 3-15]			
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Fatty Change	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Pancreas	Artery	Inflammation	Chronic Active, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 5-16]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 169	TRT#: 7	SEX: Male	DAY ON TEST: 729
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403429

ORGAN AND ACCOUNTABLE SITE STATUS

	SOA Dermis	Inflammation	Mild
	Subcut Tiss	Schwannoma Benign	
[Hyperplasia TGLS = 1-11]			
[Schwannoma Benign TGLS = 4-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 170

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Eye			
Note: Optic nerve noted in slide 9 (brain section).			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
Note: Inflammation associated with hair fragments.			
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Mild
* Skin	Hair Follicle	Cyst	
	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 170

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403430

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 2-11]

* Testes

Interstit Cell

Adenoma

Interstit Cell

Hyperplasia

Minimal

[Adenoma TGLS = 1-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 171

TRT#: 7

SEX: Male

DAY ON TEST: 679

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403431

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Eye	Retina	Atrophy	Mild
Note: optic nerve in brain slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
Note: Portion of pituitary adenoma opposing brain (cerebellum, slide 7). [Adenoma TGLS = 3-8]			
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 171	TRT#: 7	SEX: Male	DAY ON TEST: 679
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403431

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

Note: TGL2 = ICT in one testis and interstitial cell hyperplasia in the other.

[Adenoma TGLS = 2-11]

[Hyperplasia TGLS = 2-11]

PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 172

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403432

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Cyst	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Congestion	Mild
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
	[Congestion TGLS = 5-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Cyst	Mild
	Note: TGL2 = mammary cysts. Chronic-active inflammation also associated with mammary cysts.		
	[Cyst TGLS = 2-14]		
Mesentery		Necrosis	Mild
	Note: Hemorrhage also noted.		
	[Necrosis TGLS = 4-14]		
* Nose		Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 172	TRT#: 7 DOSE: 18 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403432
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland [Adenoma TGLS = 3-8]	Pars Distalis	Adenoma	
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
Note: TGL2 coded as mammary gland. [Hyperplasia TGLS = 1-11]			
* Testes	Interstit Cell	Adenoma Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 173

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403433

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 3-11+14]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-5]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 173

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403433

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
Tooth		Inflammation	Mild
Note: Tooth missing (inflammation noted at site).			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 174

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403434

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Mild
	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 4-8]			
* Prostate		Inflammation	Mild
* Skin		Cyst	
	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Cyst TGLS = 2-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 174

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403434

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-11]

* Testes

Interstit Cell

Adenoma

Atrophy

Mild

Interstit Cell

Hyperplasia

Minimal

[Adenoma TGLS = 3-15]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 175

TRT#: 7

SEX: Male

DAY ON TEST: 699

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403435

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
		Atrophy	Moderate
* Eye			
Note: Optic nerves noted in brain section (slide 9).			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Fatty Change	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary GI			
Note: TGL1 coded as skin.			
Mesentery		Inflammation	Minimal
Note: Inflammation noted in slide 6 (colon).			
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-8]			
* Prostate		Inflammation	Moderate
* Skin	Subcut Tiss	Fibroma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 175	TRT#: 7	SEX: Male	DAY ON TEST: 699
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403435

ORGAN AND ACCOUNTABLE SITE STATUS

	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
Note: TGL1 coded as skin. [Fibroma TGLS = 1-15] [Hyperplasia TGLS = 2-11]			
* Stomach, Forestomach		Edema	Marked
		Erosion	Marked
	Epithelium	Hyperplasia	Moderate
	Serosa	Inflammation	Mild
		Inflammation	Moderate
Note: Hyperplasia of squamous epithelium at site of mucosal erosion/ulceration. [Edema TGLS = 5-14] [Inflammation TGLS = 5-14]			
* Stomach, Glandular		Edema	Mild
		Inflammation	Mild
* Testes	Interstit Cell	Adenoma	
		Atrophy	Mild
	Interstit Cell	Hyperplasia	Minimal
[Adenoma TGLS = 3-11]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma
CONTRIBUTORY CAUSE OF DEATH	- Stomach;Forestomach Erosion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 176

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403436

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
		Mixed Cell Focus	
	[Leukemia Mononuclear TGLS = 1-6+7]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 3-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 176

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403436

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

[Leukemia Mononuclear TGLS = 2-5]

Leukemia Mononuclear

* Testes

[Adenoma TGLS = 4-11]

Bilateral, Interstit Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 177

TRT#: 7

SEX: Male

DAY ON TEST: 479

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403437

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Islets, Pancreatic	* Thyroid Gland	

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex	Lymphoma Malignant	
* Bone Marrow	Hyperplasia	Moderate
* Epididymis	Lymphoma Malignant	
* Eye	Lymphoma Malignant	
Note: Lymphoma found in periocular muscle.		
* Harderian Gland	Lymphoma Malignant	
* Heart	Lymphoma Malignant	
* Intestine Large, Cecum	Lymphoma Malignant	
* Intestine Large, Colon	Lymphoma Malignant	
* Intestine Large, Rectum	Lymphoma Malignant	
* Intestine Small, Duodenum	Lymphoma Malignant	
* Intestine Small, Ileum	Lymphoma Malignant	
* Intestine Small, Jejunum	Lymphoma Malignant	
* Kidney	Lymphoma Malignant	
	Mineralization	Minimal
* Liver	Lymphoma Malignant	
Note: capsular lymphoma.		
* Lung	Lymphoma Malignant	
* Lymph Node, Mesenteric	Lymphoma Malignant	
* Mammary Gland	Lymphoma Malignant	
Mesentery	Lymphoma Malignant	
[Lymphoma Malignant TGLS = 3-14]		
* Nose	Lymphoma Malignant	
* Pancreas	Lymphoma Malignant	
* Pituitary Gland	Pars Distalis	Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 177

TRT#: 7

SEX: Male

DAY ON TEST: 479

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403437

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-14]

* Preputial Gland		Lymphoma Malignant	
* Prostate		Lymphoma Malignant	
* Salivary Glands		Lymphoma Malignant	
* Seminal Vesicle		Lymphoma Malignant	
Skeletal Muscle		Lymphoma Malignant	
Note: Lymphoma in muscle deep to mammary gland.			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
		Lymphoma Malignant	
	SOA Epidermis	Necrosis	Minimal

[Hyperplasia TGLS = 1-11]

* Spleen		Lymphoma Malignant	
* Stomach, Forestomach		Lymphoma Malignant	
* Stomach, Glandular		Lymphoma Malignant	
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
		Lymphoma Malignant	
* Thymus		Lymphoma Malignant	
* Trachea		Lymphoma Malignant	
* Urinary Bladder		Lymphoma Malignant	

PRIMARY CAUSE OF DEATH - Heart Lymphoma Malignant
CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 178

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403438

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 179

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403439

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-11]		
* Testes	Interstit Cell	Adenoma	
		Atrophy	Marked
	[Adenoma TGLS = 2-11]		
	[Atrophy TGLS = 3-11]		
* Thyroid Gland	Follicular Cel	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 179

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403439

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 180

TRT#: 7

SEX: Male

DAY ON TEST: 717

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Nose	* Pancreas
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Moderate
* Bone Marrow		Hyperplasia	Mild
* Brain		Hydrocephalus	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-6+7]		
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-16]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 8-15]		
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 6-15]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 180	TRT#: 7	SEX: Male	DAY ON TEST: 717
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403440

ORGAN AND ACCOUNTABLE SITE STATUS

* Parathyroid Gland		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-5]			
* Testes	Interstit Cell	Adenoma	
		Atrophy	Mild
	Interstit Cell	Hyperplasia	Minimal
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma
 CONTRIBUTORY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 181

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403441

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Eye	Retina	Atrophy	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Hydronephrosis	Mild
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
		[Hyperplasia TGLS = 1-11]	
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 181

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403441

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 182

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403442

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Nephropathy	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
[Clear Cell Focus TGLS = 3-6+7]			
* Nose		Fibrosis	Mild
		Inflammation	Mild
Note: Fibrosis of submucosa near nasopalatine (incisive) duct in slide 2.			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Marked
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 182

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403442

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-14]

* Testes

Bilateral, Interstit Cell

Adenoma

[Adenoma TGLS = 2-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 183

TRT#: 7

SEX: Male

DAY ON TEST: 714

DOSE: 18 MG/KG

DISP: Natural Death

HISTO: 0403443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Brain		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 4-15]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
		Leukemia Mononuclear	
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 183	TRT#: 7 DOSE: 18 MG/KG	SEX: Male DISP: Natural Death	DAY ON TEST: 714 HISTO: 0403443
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ORGAN AND ACCOUNTABLE SITE STATUS

	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-11]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:22

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 184

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403444

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
* Liver		Clear Cell Focus	
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
		[Hyperplasia TGLS = 1-11]	
* Testes	Bilateral, Interstit Cell	Adenoma	
		[Adenoma TGLS = 2-11]	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 185

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403445

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Intestine Large, Rectum		Parasite Metazoan	
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney	Transit Epithe	Hyperplasia	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Nose		Inflammation	Minimal
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Prostate		Inflammation	Minimal
* Seminal Vesicle	Epithelium	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 185	TRT#: 7	SEX: Male	DAY ON TEST: 729
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403445

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-11]

* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:22
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 186

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403446

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Necrosis	Moderate
Mesentery			
[Necrosis TGLS = 4-14]			
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 1-11]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 2-11]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 186

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403446

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 187

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403447

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
	Valve	Inflammation	Mild
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Mineralization	Mild
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Intermed	Adenoma	
		[Adenoma TGLS = 2-14]	
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Marked
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 187	TRT#: 7	SEX: Male	DAY ON TEST: 728
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403447

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 188

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403448

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Salivary Glands
* Seminal Vesicle	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Eye			
Note: Optic nerve missing.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 188

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403448

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 189

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403449

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	Moderate
		Mineralization	Minimal
		Nephropathy	Mild
[Cyst TGLS = 6-16]			
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Adenoma	
[Adenoma TGLS = 4-14]			
* Pancreas	Acinus	Atrophy	Mild
	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-15]			
* Preputial Gland		Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 189	TRT#: 7	SEX: Male	DAY ON TEST: 728
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403449

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 7-12]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
		Atrophy	Moderate
[Adenoma TGLS = 3-11]			
[Atrophy TGLS = 2-11]			
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 190

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403450

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6+7]		
* Lung		Alveolar/Bronchiolar Adenoma	
		Leukemia Mononuclear	
	[Alveolar/Bronchiolar Adenoma TGLS = 7-15]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary GI			
	Note: TGL2 coded as skin.		
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 190	TRT#: 7	SEX: Male	DAY ON TEST: 728
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403450

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 6-8]			
* Prostate		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
Note: TGL2 coded as skin.			
[Hyperplasia TGLS = 1-11]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-5]			
* Testes	Interstit Cell	Hyperplasia	Mild
[Hyperplasia TGLS = 5-11]			
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal
[Adenoma TGLS = 8-8]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 191

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403451

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung		Inflammation	Minimal
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-8]		
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
		Squamous Cell Papilloma	
	[Hyperplasia TGLS = 1-11]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 191	TRT#: 7	SEX: Male	DAY ON TEST: 728
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403451

ORGAN AND ACCOUNTABLE SITE STATUS

[Squamous Cell Papilloma TGLS = 3-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 192

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403452

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 3-14]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 192	TRT#: 7	SEX: Male	DAY ON TEST: 728
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403452

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 193

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403453

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 2-11]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 193

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403453

ORGAN AND ACCOUNTABLE SITE STATUS

Inflammation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 194

TRT#: 7

SEX: Male

DAY ON TEST: 688

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403454

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 5,6-15+16]		
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Prostate		Inflammation	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 194	TRT#: 7	SEX: Male	DAY ON TEST: 688
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403454

ORGAN AND ACCOUNTABLE SITE STATUS

	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-14]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-5]			
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 195

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403455

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Minimal
	Note: Scant pigment observed in region of angiectasis.		
* Prostate	Epithelium	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-11]		
* Testes	Bilateral, Interstit Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 195

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403455

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 2-11]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 196

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403456

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Nose	* Parathyroid Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Trachea		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
		Leukemia Mononuclear	
* Adrenal Medulla			
Blood Vessel			
Note: MCL noted in periaortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Brain		Hemorrhage	Mild
		Leukemia Mononuclear	
Note: MCL associated with focal cerebral hemorrhage and astrocytosis.			
[Hemorrhage TGLS = 3-14]			
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Necrosis	Mild
Note: Necrosis associated with MCL.			
[Necrosis TGLS = 8,9-16]			
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-6+7]			
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 196	TRT#: 7	SEX: Male	DAY ON TEST: 729
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403456

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 5-15]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 10-15]			
* Pancreas	Acinus	Atrophy	Mild
	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
[Adenoma TGLS = 2-8]			
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-11]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 6-17]			
* Testes	Interstit Cell	Hyperplasia	Mild
[Hyperplasia TGLS = 4-11]			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 197

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403457

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Parathyroid Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 6,7-16]		
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 8-15]		
* Prostate	Epithelium	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 197	TRT#: 7	SEX: Male	DAY ON TEST: 728
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403457

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-17]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-14]			
* Testes	Interstit Cell	Adenoma	
		Atrophy	Marked
	Interstit Cell	Hyperplasia	Mild
[Adenoma TGLS = 5-11]			
[Atrophy TGLS = 4-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 198

TRT#: 7

SEX: Male

DAY ON TEST: 612

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403458

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-15]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
	[Hyperplasia TGLS = 5-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-16]		
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 198	TRT#: 7	SEX: Male	DAY ON TEST: 612
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403458

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 2-14]

* Testes	Interstit Cell	Hyperplasia	Minimal
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 199

TRT#: 7

SEX: Male

DAY ON TEST: 612

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403459

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Preputial Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Eye			
Note: optic nerve in slide 9 (brain).			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization Nephropathy	Minimal Mild
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6+7]			
* Lung		Inflammation Leukemia Mononuclear	Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Prostate	Epithelium	Hyperplasia Inflammation	Minimal Mild
* Skin	SOA Epidermis SOA Epidermis	Hyperkeratosis Hyperplasia	Mild Minimal
[Hyperplasia TGLS = 1-11]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-5]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 199	TRT#: 7	SEX: Male	DAY ON TEST: 612
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403459

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Forestomach		Inflammation	Mild
		Ulcer	Moderate
[Ulcer TGLS = 5-14]			
* Testes	Bilateral, Interstit Cell	Adenoma	
[Adenoma TGLS = 3-11]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 200

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403460

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Preputial Gland	* Salivary Glands	* Seminal Vesicle
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Brain			
Note: small section of cerebellum present.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
[Clear Cell Focus TGLS = 2-6+7]			
[Mixed Cell Focus TGLS = 2-6+7]			
* Lung		Inflammation	Mild
* Nose		Inflammation	Mild
* Pituitary Gl			
Note: Pigment laden macrophages noted.			
* Prostate		Inflammation	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 200	TRT#: 7 DOSE: 18 MG/KG	SEX: Male DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403460
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ORGAN AND ACCOUNTABLE SITE STATUS

	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-14]			
* Testes	Interstit Cell	Adenoma	
		Atrophy	Moderate
	Interstit Cell	Hyperplasia	Mild
		Inflammation	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 201

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403461

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
[Basophilic Focus TGLS = 3-6+7+14]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Thymus			
Note: perithymic fat mononuclear cell infiltrate.			
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 202

TRT#: 2

SEX: Female

DAY ON TEST: 617

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403462

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Eye	Retina	Atrophy	Marked
		Cataract	Mild
	[Cataract TGLS = 1-10]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-6+7]		
* Lung		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[Fibroadenoma TGLS = 2-14, 3-13]		
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Mild
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 202

TRT#: 2

SEX: Female

DAY ON TEST: 617

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403462

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 4-5]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 203

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403463

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland	Duct	Cyst	Mild
[Cyst TGLS = 1-12]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-13]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 4-13]			
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 3-8]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 204

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403464

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
		Inflammation	Minimal
	[Basophilic Focus TGLS = 1-6+7+13]		
* Lung		Inflammation	Minimal
* Nose		Inflammation	Minimal
* Pancreas	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Mild
* Skin	SOA Epidermis	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 205

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 730
HISTO: 0403465

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain		Hemorrhage	Moderate
Note: Hemorrhage (at Brain base) associated with invasive Pituitary Adenoma.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
[Hypertrophy TGLS = 2-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Adenocarcinoma	
[Adenocarcinoma TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-13]			
* Skin	SOA Epidermis	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 206

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403466

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Mild
		Mixed Cell Focus	
[Basophilic Focus TGLS = 1-6+7+14]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate

[Adenoma TGLS = 2-13]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 207

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403467

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Eye			
Note: optic nerve in slide 9.			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
		Mixed Cell Focus	
[Hepatodiaphragmatic Nodule TGLS = 2-14]			
[Mixed Cell Focus TGLS = 1-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Mild
[Cyst TGLS = 3-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 207

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403467

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 208

TRT#: 2

SEX: Female

DAY ON TEST: 568

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403468

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 209

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403469

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		[Fibroadenoma TGLS = 1-13]	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		[Hematopoietic Cell Proliferation TGLS = 2-5]	
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 210

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403470

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Esophagus	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Clitoral Gland [Cyst TGLS = 5-15]	Duct	Cyst	Moderate
* Eye [Cataract TGLS = 2-10]	Retina	Atrophy Cataract	Marked Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver [Hepatodiaphragmatic Nodule TGLS = 4-13]		Nephropathy Basophilic Focus Hepatodiaphragmatic Nodule Inflammation	Minimal
* Lung Mesentery [Necrosis TGLS = 3-14]	Alveolus	Infiltration Cellular Necrosis	Histiocyte, Minimal Moderate
* Pituitary Gland [Adenoma TGLS = 1-8]	Pars Distalis Pars Distalis	Adenoma Hyperplasia	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 210

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403470

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 211

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 730
HISTO: 0403471

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 2-6+7+14]			
* Lung	Alveolar Epith Alveolus	Hyperplasia Infiltration Cellular Fibroadenoma	Mild Histiocyte, Minimal
* Mammary Gland			
[Fibroadenoma TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Salivary Glands		Basophilic Focus	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus	Endometrium	Hyperplasia Inflammation	Cystic, Moderate Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 212

TRT#: 2

SEX: Female

DAY ON TEST: 628

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403472

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung	Alveolus	Infiltration Cellular Leukemia Mononuclear	Histiocyte, Minimal
	Lymph Node	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-13]		
	[Leukemia Mononuclear TGLS = 4-14]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma Leukemia Mononuclear	
	[Adenoma TGLS = 5-8]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 212

TRT#: 2

SEX: Female

DAY ON TEST: 628

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403472

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 2-5]

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 213

TRT#: 2

SEX: Female

DAY ON TEST: 575

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403473

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Adenoma	
* Harderian Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Liver		Clear Cell Focus	
		Hematopoietic Cell Proliferation	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
Skeletal Muscle		Rhabdomyosarcoma	
	[Rhabdomyosarcoma TGLS = 1-13+14]		
* Spleen	Capsule	Inflammation	Minimal
	[Inflammation TGLS = 2-14]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Hemorrhage	Moderate
	Bilateral	Sarcoma Stromal	

Note: TGL3 = stromal sarcoma. Uterine lumen also dilated.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 213

TRT#: 2

SEX: Female

DAY ON TEST: 575

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403473

ORGAN AND ACCOUNTABLE SITE STATUS

[Sarcoma Stromal TGLS = 3-11]

PRIMARY CAUSE OF DEATH

- Skeletal Muscle Rhabdomyosarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 214

TRT#: 2

SEX: Female

DAY ON TEST: 701

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403474

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Clitoral Gland		Adenoma	
Note: 1 normal clitoral gland noted on slide 12 (left). The right gland contains a tumor. [Adenoma TGLS = 1-15]			
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Necrosis	Mild
[Basophilic Focus TGLS = 4,5-13+14] [Hypertrophy TGLS = 3-6+7+13+14] [Necrosis TGLS = 3-6+7+13+14]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 214	TRT#: 2 DOSE: 0 MG/KG	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: 701 HISTO: 0403474
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ORGAN AND ACCOUNTABLE SITE STATUS

Mesentery [Necrosis TGLS = 2-16]		Necrosis	Moderate
* Pituitary Gland [Adenoma TGLS = 7-8]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Mild

PRIMARY CAUSE OF DEATH - Clitoral Gland Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 215

TRT#: 2

SEX: Female

DAY ON TEST: 716

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403475

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Mild
[Leukemia Mononuclear TGLS = 7-8]			
* Bone Marrow		Hyperplasia	Marked
* Clitoral Gland	Duct	Cyst	Mild
[Cyst TGLS = 8-12]			
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear Nephropathy	Mild
* Liver		Basophilic Focus Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia Leukemia Mononuclear	Minimal
[Hepatodiaphragmatic Nodule TGLS = 5-14]			
[Leukemia Mononuclear TGLS = 4-6+7+14]			
* Lung		Inflammation Leukemia Mononuclear	Moderate
Note: chronic-active inflammation associated with fibrosis and pneumocyte hyperplasia.			
[Inflammation TGLS = 9-3+4]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 215	TRT#: 2 DOSE: 0 MG/KG	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: 716 HISTO: 0403475
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ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland [Fibroadenoma TGLS = 1,2-13+14]		Fibroadenoma	Multiple
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland [Adenoma TGLS = 6-15]	Pars Distalis	Adenoma	
* Spleen [Leukemia Mononuclear TGLS = 3-13]		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma
CONTRIBUTORY CAUSE OF DEATH	- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 216

TRT#: 2

SEX: Female

DAY ON TEST: 565

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403476

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 217

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403477

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Kidney	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 2-6+7+14]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-15]			
* Ovary		Cyst	Moderate
[Cyst TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 218

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403478

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Adenocarcinoma	
	[Adenocarcinoma TGLS = 1-13]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 218

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403478

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 219

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403479

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex	Bilateral	Atrophy Hyperplasia Hypertrophy	Moderate Minimal Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus Inflammation	Mild
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 220

TRT#: 2

SEX: Female

DAY ON TEST: 695

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403480

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Brain		Hemorrhage	Moderate
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 2-14]		
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Ovary		Cyst	Mild
	[Cyst TGLS = 1-13]		
* Pituitary Gland	Pars Distalis	Adenoma	

Note: pituitary adenoma exhibits focal brain invasion associated with brain hemorrhage.

[Adenoma TGLS = 3-8]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 221

TRT#: 2

SEX: Female

DAY ON TEST: 690

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403481

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain		Hemorrhage	Moderate
Note: hemorrhage found in cerebrum (at site of pituitary adenoma). [Hemorrhage TGLS = 3-9]			
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
* Liver		Inflammation	Minimal
		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Skin	Dermis	Inflammation	Moderate
	Epidermis	Ulcer	Moderate
[Inflammation TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Inflammation	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 222

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403482

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 223

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403483

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Clitoral GI			
Note: TGL2 coded as mammary gland.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 2-12]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 224

TRT#: 2

SEX: Female

DAY ON TEST: 628

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0403484

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Adenoma	
Note: TGL1 = clitoral gland adenoma (not mammary gland).			
[Adenoma TGLS = 1-13]			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Cyst	Marked
		Inflammation	Moderate
Note: ruptured duct cyst suspected associated with inflammation. TGL1 coded as clitoral gland.			
[Cyst TGLS = 2-14]			
[Inflammation TGLS = 2-14]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-15]			
* Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 225

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403485

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye Note: optic nerve in slide 9.	Retina	Atrophy	Moderate
* Heart		Cardiomyopathy	Mild
* Int Sm Duoden Note: ectopic pancreas in duodenum (slide 6).			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
* Mammary Gland [Fibroadenoma TGLS = 1-13]		Fibroadenoma	
* Pituitary Gland	Pars Distalis	Cyst	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus Note: lumen dilatation, bilateral (physiologic).			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 226

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403486

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: optic nerve not found.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Mild
		Inflammation	Minimal
* Mammary Gland		Inflammation	Minimal
* Ovary		Cyst	Mild
[Cyst TGLS = 1-11]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 227

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 617
HISTO: 0403487

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 1-13]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 228

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 687
HISTO: 0403488

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: optic nerves in slide 9.			
* Heart		Cardiomyopathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
[Fibroadenoma TGLS = 1-13, 3-15]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 229

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403489

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Bone Marrow		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Mild
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 230

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403490

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Mammary Gland		Adenoma	
	[Adenoma TGLS = 3-14]		
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 5,6-16]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
	[Hyperplasia TGLS = 4-15]		
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 230

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403490

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-13]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 231

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403491

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis Degeneration Vacuolization Cytoplasmic	Mild Cystic, Minimal Moderate
[Vacuolization Cytoplasmic TGLS = 4-8]			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Adenoma	
[Adenoma TGLS = 6-14]			
* Kidney		Mineralization Nephropathy	Minimal Moderate
* Liver	Hepatocyte	Basophilic Focus Hypertrophy Inflammation Mixed Cell Focus	Mild Minimal
[Hypertrophy TGLS = 2-13]			
[Mixed Cell Focus TGLS = 3-6+7+15]			
* Lung	Alveolus	Alveolar/Bronchiolar Adenoma Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma Galactocele	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 231	TRT#: 2 DOSE: 0 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403491
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ORGAN AND ACCOUNTABLE SITE STATUS

Note: multiple galactoceles noted. Duct epithelial hyperplasia found in slide 12 and slide 15. [Fibroadenoma TGLS = 1-13] [Galactoceles TGLS = 7-12+15]		Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
[Adenoma TGLS = 5-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 232

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403492

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney	Transit Epithe	Hyperplasia	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 233

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403493

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 3-14]		
* Lung		Inflammation	Minimal
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 2-14]		
* Nose			
Note: TGL4 coded as tooth.			
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth		Odontoma	
	[Odontoma TGLS = 4-1+2+15]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 233

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403493

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 234

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403494

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Bone Marrow		Hyperplasia	Minimal
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Parasite Metazoan	
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Portal	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 235

TRT#: 2

SEX: Female

DAY ON TEST: 649

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403495

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Inflammation	Mild
* Nose			
Note: TGL2 coded as skin.			
Peripheral Nerve		Squamous Cell Carcinoma	Metastatic (Skin)
Note: Invasion of squamous cell carcinoma (of subcutis) into the trigeminal nerve (TGL1).			
[Squamous Cell Carcinoma TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin		Squamous Cell Carcinoma	
[Squamous Cell Carcinoma TGLS = 2-1]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Skin Squamous Cell Carcinoma

CONTRIBUTORY CAUSE OF DEATH

- Peripheral Nerve Squamous Cell Carcinoma Skin; Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 236

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403496

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	Minimal
	Renal Tubule	Hyperplasia	Moderate
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild

Note: Inflammation in interstitium and within lumen of bronchus (associated with fibrous papillary projections).

[Alveolar/Bronchiolar Adenoma TGLS = 4-15]

* Mammary Gland

Fibroadenoma

[Fibroadenoma TGLS = 1-13]

Mesentery

Necrosis

Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 236	TRT#: 2	SEX: Female	DAY ON TEST: 729
	DOSE: 0 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403496

ORGAN AND ACCOUNTABLE SITE STATUS

[Necrosis TGLS = 3-14]		
* Pituitary Gland	Pars Distalis	Adenoma
[Adenoma TGLS = 2-8]		
* Thyroid Gland	C Cell	Adenoma
* Uterus		
Note: physiologic lumen dilatation.		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 237

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403497

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
	[Hyperplasia TGLS = 1-13]		
* Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 238

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 687
HISTO: 0403498

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Brain		Hydrocephalus	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin	SOA Epidermis	Hyperplasia	Minimal
* Stomach, Forestomach		Edema	Minimal
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 239

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 632
HISTO: 0403499

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Brain		Hydrocephalus	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
Lymph Node	Pancreatic	Infiltration Cellular	Histiocyte, Mild
Note: TGL1 = pancreatic lymph node. Mesenteric fat nodule not noted. [Infiltration Cellular TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 240

TRT#: 2

SEX: Female

DAY ON TEST: 723

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403500

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Skin	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
Blood Vessel			
Note: MCL noted in peri-aortic fat (slide 7).			
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Hydronephrosis	Minimal
		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6+7]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-15]			
* Nose		Inflammation	Mild
* Ovary		Cyst	Moderate
[Cyst TGLS = 1-11]			
* Pancreas	Acinus	Atrophy	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 240	TRT#: 2	SEX: Female	DAY ON TEST: 723
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403500

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland		Hemorrhage	Mild
		Leukemia Mononuclear	
[Hemorrhage TGLS = 6-13]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-5]			
* Stomach, Forestomach		Ulcer	Mild
* Stomach, Glandular		Erosion	Minimal
	Glands	Hyperplasia	Mild
[Hyperplasia TGLS = 5-14]			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 241	TRT#: 2 DOSE: 0 MG/KG	SEX: Female DISP: Natural Death	DAY ON TEST: 609 HISTO: 0403501
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Nose
* Ovary	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-13]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 242

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403502

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
		Leukemia Mononuclear	
Note: leukocytes in some dilated sinusoids.			
[Hepatodiaphragmatic Nodule TGLS = 2-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Cyst	Moderate
		Fibroadenoma	
		Hyperplasia	Moderate
[Fibroadenoma TGLS = 1-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Mild
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 242

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403502

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 243

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403503

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 2-6+7]			
* Lung	Alveolar Epith Alveolus	Hyperplasia Infiltration Cellular	Moderate Histiocyte, Minimal
* Nose		Inflammation	Minimal
* Ovary		Cyst	Mild
[Cyst TGLS = 1-11]			
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-13]			
* Skin	SOA Epidermis	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 244

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403504

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
		Alveolar/Bronchiolar Carcinoma	
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
	[Alveolar/Bronchiolar Adenoma TGLS = 3-4]		
	[Alveolar/Bronchiolar Carcinoma TGLS = 3-14]		
Lymph Node	Mediastinal	Hemorrhage	Moderate
	[Hemorrhage TGLS = 2-14]		
* Ovary		Cyst	Moderate
	[Cyst TGLS = 1-13]		
* Pancreas	Acinus	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 244

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403504

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 245

TRT#: 2

SEX: Female

DAY ON TEST: 553

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403505

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Marked
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-13]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Minimal
[Adenoma TGLS = 2-8]			

PRIMARY CAUSE OF DEATH

- Clitoral Gland Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 246

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403506

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
--------------------------	---------------------

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-13]			
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Inflammation	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-14]			
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal
* Uterus		Hydrometra	Mild

Note: physiologic lumen dilatation found in horn. The uterine horn also appears to have telescoped upon itself (suspect post-mortem change).

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 246

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403506

ORGAN AND ACCOUNTABLE SITE STATUS

[Hydrometra TGLS = 2-13]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 247

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403507

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-13]			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
Note: basophilic focus within TGL5 on slide 16.			
[Basophilic Focus TGLS = 4-6+7+16]			
[Hypertrophy TGLS = 5-16]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-14]			
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Mild
* Skin			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 247

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403507

ORGAN AND ACCOUNTABLE SITE STATUS

Note: TGL = normal subcutaneous fat (NCL).

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 248

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 673
HISTO: 0403508

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Clitoral Gland		Inflammation	Minimal
[Inflammation TGLS = 4-12]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Fatty Change	Mild
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
[Hepatodiaphragmatic Nodule TGLS = 2,3-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Stomach, Forestomach		Inflammation	Moderate
		Ulcer	Moderate
[Ulcer TGLS = 5-14]			
* Stomach, Glandular		Inflammation	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 248

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 673
HISTO: 0403508

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 249

TRT#: 2
DOSE: 0 MG/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 698
HISTO: 0403509

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Trachea	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Leukemia Mononuclear	
Blood Vessel			
Note: MCL observed in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Brain			
Note: focus of necrotic leukocytes (presumed intravascular MCL) in one brain section (slide 9).			
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Erosion	Mild
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6+7]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Mediastinal, Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-15, 6-16]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 249	TRT#: 2	SEX: Female	DAY ON TEST: 698
	DOSE: 0 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403509

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma Leukemia Mononuclear	
	[Adenoma TGLS = 1-13]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-5]		
* Stomach, Forestomach		Ulcer	Mild
	[Ulcer TGLS = 7-6]		
* Stomach, Glandular		Erosion	Minimal
	[Erosion TGLS = 7-6]		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 250

TRT#: 2

SEX: Female

DAY ON TEST: 688

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403510

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Parathyroid Gland	Peripheral Nerve	* Salivary Glands	* Skin
Spinal Cord	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain			
Note: tumor cells closely apposing neurohypophysis.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-14]			
* Pancreas	Acinus	Atrophy	Mild
Perph Nerve			
Note: sciatic nerve examined.			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-13]			
Spinal Cord			
Note: spinal cord (3 sections) examined.			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 250

TRT#: 2

SEX: Female

DAY ON TEST: 688

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403510

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 251

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403511

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 252

TRT#: 4

SEX: Female

DAY ON TEST: 698

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403512

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain		Hydrocephalus	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 253

TRT#: 4

DOSE: 2 MG/KG

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 616

HISTO: 0403513

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: optic nerve in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
		Necrosis	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin	SOA Dermis	Fibrosis	Mild
	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Moderate
	SOA Epidermis	Necrosis	Mild
	SOA Epidermis	Ulcer	Mild
	[Hyperplasia TGLS = 2-14]		
Zymbal's Gland		Adenoma	
	[Adenoma TGLS = 1-13]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 253

TRT#: 4

SEX: Female

DAY ON TEST: 616

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403513

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Zymbal's Gland Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 254

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403514

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Diverticulum	
[Diverticulum TGLS = 3-13]			
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
[Basophilic Focus TGLS = 2-14]			
[Hepatodiaphragmatic Nodule TGLS = 1-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 255

TRT#: 4

SEX: Female

DAY ON TEST: 597

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403515

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung		Leukemia Mononuclear	
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-5]		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 256

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403516

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 2-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Deep Cervical	Hemorrhage	Mild
[Hemorrhage TGLS = 3-13]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 1-11]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 257

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403517

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 258

TRT#: 4

SEX: Female

DAY ON TEST: 561

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403518

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Brain		Hydrocephalus	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
		Metaplasia	Squamous, Mild
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-8]		
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 259

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403519

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-14]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-14]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 3-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 260

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403520

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Bone		Osteosarcoma	
Note: osteosarcoma found in femur (slide 2).			
* Heart		Cardiomyopathy	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hemorrhage	Mild
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Hemorrhage TGLS = 2-14]		
	[Leukemia Mononuclear TGLS = 2-14]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas			
Note: enlarged pancreatic lymph node also with MCL (slide 6).			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
	[Hyperplasia TGLS = 3-13]		
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 260

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403520

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 1-13]

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 261

TRT#: 4

SEX: Female

DAY ON TEST: 561

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403521

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
Blood Vessel			
Note: MCL in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Kidney		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6+7]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 1-13]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-5]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 262

TRT#: 4

SEX: Female

DAY ON TEST: 649

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403522

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Fatty Change	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[Fibroadenoma TGLS = 1-13, 2-14, 5-15]		
	Mesentery	Necrosis	Moderate
	[Necrosis TGLS = 3-13]		
* Ovary		Cyst	Moderate
	[Cyst TGLS = 4-11]		
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 7-15]		
* Skin	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Moderate
	SOA Epidermis	Necrosis	Minimal
	[Hyperplasia TGLS = 6-14]		
* Stomach, Forestomach		Inflammation	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 262

TRT#: 4

SEX: Female

DAY ON TEST: 649

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403522

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 263

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403523

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
Blood Vessel			
Note: MCL found in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
[Basophilic Focus TGLS = 1,2-13+14]			
[Leukemia Mononuclear TGLS = 2-14]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-14, 4-15]			
* Ovary		Cyst	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
	Epidermis	Ulcer	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 263	TRT#: 4	SEX: Female	DAY ON TEST: 730
	DOSE: 2 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403523

ORGAN AND ACCOUNTABLE SITE STATUS

[Ulcer TGLS = 6-16]	SOA Epidermis	Ulcer	Mild
[Ulcer TGLS = 5-16]			
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 264	TRT#: 4	SEX: Female	DAY ON TEST: 730
	DOSE: 2 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403524

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Mammary Gland		Adenoma	
		Cyst	Moderate
		Fibroadenoma	
		Hyperplasia	Moderate

Note: adenoma found on slide 13; associated with large duct cyst and duct epithelial hyperplasia.

[Cyst TGLS = 1-13]

[Fibroadenoma TGLS = 2-14]

* Pituitary Gland	Pars Distalis	Adenoma	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 265

TRT#: 4

SEX: Female

DAY ON TEST: 596

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403525

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Inflammation	Minimal
* Mammary GI			
Note: TGL1 coded as skin.			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	Subcut Tiss	Schwannoma Malignant	

[Schwannoma Malignant TGLS = 1-13]

PRIMARY CAUSE OF DEATH

- Skin Subcut Tiss Schwannoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 266

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403526

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Clitoral GI			
Note: 1 clitoral gland missing.			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
[Basophilic Focus TGLS = 3-14]			
[Clear Cell Focus TGLS = 3-14]			
[Hepatodiaphragmatic Nodule TGLS = 2-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
Note: inflammation and periductal fibrosis noted on slide 12.			
[Fibroadenoma TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 266

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403526

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 4-15]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 267

TRT#: 4

SEX: Female

DAY ON TEST: 462

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403527

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex	Leukemia Mononuclear Necrosis	Marked
[Leukemia Mononuclear TGLS = 4-13]		
* Bone Marrow	Hyperplasia	Mild
* Brain	Hemorrhage	Minimal
* Kidney	Leukemia Mononuclear	
* Liver	Leukemia Mononuclear	
* Lung	Leukemia Mononuclear	
* Lymph Node, Mesenteric Mesentery	Leukemia Mononuclear Necrosis	Moderate
[Necrosis TGLS = 3-14]		
* Pituitary Gland	Leukemia Mononuclear	
* Spleen	Infarct Leukemia Mononuclear	Moderate
[Infarct TGLS = 1-13]		
[Leukemia Mononuclear TGLS = 2-5]		
* Stomach, Glandular	Erosion	Mild

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 268

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403528

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
--------------------------	---------------------

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 1-15]			
* Lung		Alveolar/Bronchiolar Adenoma	
* Mammary Gland		Adenoma	
		Fibroadenoma	
[Adenoma TGLS = 3-13]			
[Fibroadenoma TGLS = 4-14]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 6-15]			
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
Note: decidual cells found in TGL5.			
[Polyp Stromal TGLS = 2-11, 5-11]			

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 269

TRT#: 4

SEX: Female

DAY ON TEST: 573

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403529

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Brain		Hydrocephalus	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Fatty Change	Mild
		Hematopoietic Cell Proliferation	Minimal
		Inflammation	Minimal
	[Fatty Change TGLS = 2,3-6+7+13]		
* Mammary Gland		Adenoma	
		Cyst	Moderate
	[Adenoma TGLS = 4-14]		
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 5-8]		
* Spleen		Hematopoietic Cell Proliferation	Mild
	[Hematopoietic Cell Proliferation TGLS = 1-5]		
* Thyroid Gland	C Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 269

TRT#: 4

SEX: Female

DAY ON TEST: 573

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403529

ORGAN AND ACCOUNTABLE SITE STATUS

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 270

TRT#: 4

SEX: Female

DAY ON TEST: 723

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403530

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Eye	Retina	Atrophy	Marked
		Cataract	Moderate
	[Cataract TGLS = 5-10]		
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung		Inflammation	Mild
* Mammary Gland		Adenoma	
		Cyst	Marked
		Fibroadenoma	Multiple
		Hyperplasia	Moderate
	[Adenoma TGLS = 2-14]		
	[Fibroadenoma TGLS = 1,3-13+15]		
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 4-13]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 6-16]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 270

TRT#: 4
DOSE: 2 MG/KG

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST: 723
HISTO: 0403530

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell
C Cell

Adenoma
Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 271

TRT#: 4

SEX: Female

DAY ON TEST: 723

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403531

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-13]			
* Ovary		Cyst	Moderate
[Cyst TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-8]			
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma
CONTRIBUTORY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 271

TRT#: 4

SEX: Female

DAY ON TEST: 723

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403531

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 272

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403532

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-8]		
* Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 273

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403533

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: optic nerve found in block 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 274

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403534

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
		Hypertrophy	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 275

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403535

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 3-12]			
* Heart		Cardiomyopathy	Minimal
* Kidney	Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
[Clear Cell Focus TGLS = 5-16]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
* Mammary Gland		Fibroadenoma	Multiple
[Fibroadenoma TGLS = 1,2-13+14]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 4-16]			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Mild
[Cyst TGLS = 6-15]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 275

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403535

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 276

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403536

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Clitoral Gland	Duct	Cyst	Minimal
[Cyst TGLS = 2-12]			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Angiectasis	Mild
		Basophilic Focus	
		Fatty Change	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
[Hyperplasia TGLS = 3-8]			
* Thyroid Gland	C Cell	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 276

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403536

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 277

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403537

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Minimal
	[Clear Cell Focus TGLS = 4-14]		
* Lung		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-14]		
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 5-13]		
* Ovary		Cyst	Mild
	[Cyst TGLS = 2-11]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-8]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 277

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403537

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 278

TRT#: 4

SEX: Female

DAY ON TEST: 643

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403538

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Eye	Retina	Atrophy	Marked
		Cataract	Moderate
	[Cataract TGLS = 4-10]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 3-13]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-5]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 279

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403539

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney	Renal Tubule	Hyperplasia	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 4-6]			
* Lung	Alveolar Epith Alveolus	Hyperplasia	Mild
		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
[Fibroadenoma TGLS = 1,2,3-13+14+15]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 6-16]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 280

TRT#: 4

SEX: Female

DAY ON TEST: 466

DOSE: 2 MG/KG

DISP: Natural Death

HISTO: 0403540

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 1-13]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperplasia	Minimal
* Uterus			

Note: uterine physiologic horn dilatation.

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 281

TRT#: 4

SEX: Female

DAY ON TEST: 485

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403541

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 1-13]		
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 2-14]		
* Nose		Inflammation	Mild
* Ovary		Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-8]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 282

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403542

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
[Hypertrophy TGLS = 1-6]			
* Lung		Hematopoietic Cell Proliferation	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Mild
[Adenoma TGLS = 2-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 282

TRT#: 4
DOSE: 2 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 730
HISTO: 0403542

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 283

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403543

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 1-13]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
[Basophilic Focus TGLS = 3-14]		Inflammation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 2-8]			
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
	Follicular Cel	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 283

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403543

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 284

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403544

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Necrosis	Mild
Note: hepatocyte necrosis found at one margin (appearing nodular). [Hepatodiaphragmatic Nodule TGLS = 3-13]			
* Mammary Gland		Adenoma	
		Fibroadenoma	
		[Adenoma TGLS = 2-15]	
		[Fibroadenoma TGLS = 1-14]	
Mesentery		Necrosis	Moderate
		[Necrosis TGLS = 4,5-13+16]	
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 284

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403544

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 6-8]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 285

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403545

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 4-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Moderate
	SOA Epidermis	Necrosis	Mild
	SOA Epidermis	Ulcer	Moderate
[Hyperplasia TGLS = 2-13]			
[Ulcer TGLS = 2-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 285

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403545

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 286

TRT#: 4

SEX: Female

DAY ON TEST: 467

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403546

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Marked
* Kidney		Nephropathy	Mild
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-13]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
* Uterus		Sarcoma Stromal	
[Sarcoma Stromal TGLS = 1-14]			

PRIMARY CAUSE OF DEATH

- Uterus Sarcoma Stromal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 287

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403547

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
--------------------------	---------------------

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Mild
	[Hyperplasia TGLS = 3-8]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-5]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 287

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403547

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Polyp Stromal

[Polyp Stromal TGLS = 4-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 288

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403548

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Salivary Glands	* Skin	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung		Inflammation	Minimal
* Parathyroid Gland		Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Marked
[Hyperplasia TGLS = 2-8]			
* Thyroid Gland	C Cell	Adenoma	
[Adenoma TGLS = 1-13]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 289

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403549

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney	Renal Tubule	Carcinoma	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 290

TRT#: 4

SEX: Female

DAY ON TEST: 390

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403550

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-14]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-13]		
* Pituitary Gland	Pars Distalis	Cyst	Mild
		Leukemia Mononuclear	
	[Cyst TGLS = 4-14]		
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-13]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 290

TRT#: 4

SEX: Female

DAY ON TEST: 390

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403550

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 291

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403551

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Eye	Cornea	Edema	Mild
[Edema TGLS = 2-10]			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-6+7]			
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 3-14]			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 6-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
	SOA Epidermis	Necrosis	Minimal
	SOA Epidermis	Ulcer	Minimal
[Hyperplasia TGLS = 1-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 291	TRT#: 4 DOSE: 2 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403551
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ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 4-13]		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Mild

PRIMARY CAUSE OF DEATH	-
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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 292

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403552

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Mild
	[Adenoma TGLS = 4-8]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 1-5]		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
Zymbal's Gland		Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 292

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403552

ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 3-13]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 293

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403553

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-13]			
* Nose		Inflammation	Moderate
* Ovary		Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 294

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403554

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Inflammation TGLS = 1-13]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 2-8]			
* Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 295

TRT#: 4

SEX: Female

DAY ON TEST: 678

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403555

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Moderate
		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Infarct	Moderate
		Nephropathy	Mild
		Thrombosis	Mild
* Liver		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
	[Adenoma TGLS = 3-8]		
* Spleen		Infarct	Moderate
	[Leukemia Mononuclear TGLS = 1-5]	Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 295

TRT#: 4

SEX: Female

DAY ON TEST: 678

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403555

ORGAN AND ACCOUNTABLE SITE STATUS

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 296

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403556

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Minimal
* Eye	Retina	Atrophy	Marked
		Cataract	Moderate
	[Cataract TGLS = 1-10]		
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[Basophilic Focus TGLS = 7-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Moderate
	[Fibroadenoma TGLS = 2,3,4,5-13+14+15+16]		
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 296

TRT#: 4
DOSE: 2 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 730
HISTO: 0403556

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-8]

* Skin SOA Epidermis
* Spleen

Hyperkeratosis
Atrophy

Minimal
Moderate

[Atrophy TGLS = 6-5]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 297

TRT#: 4

SEX: Female

DAY ON TEST: 629

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403557

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Moderate
	Atrium	Thrombosis	Marked
Note: Dilatation of atrium (secondary to thrombosis) accounts for TGL5. [Thrombosis TGLS = 7-14]			
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 4-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Moderate
* Lymph Node, Mesenteric		Hemorrhage	Mild
[Hemorrhage TGLS = 6-6]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Intermed	Adenoma	
[Adenoma TGLS = 1-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 2-13]			

PRIMARY CAUSE OF DEATH - Heart Atrium Thrombosis

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 297

TRT#: 4

SEX: Female

DAY ON TEST: 629

DOSE: 2 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403557

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 298

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403558

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy	Cystic, Minimal Mild
Blood Vessel			
Note: MCL in peri-aortic fat.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization Nephropathy	Minimal Mild
* Liver		Basophilic Focus Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6+7]			
* Lung	Alveolar Epith Alveolus	Hyperplasia Infiltration Cellular Fibroadenoma	Mild Histiocyte, Minimal
* Mammary Gland			
[Fibroadenoma TGLS = 4-13]			
* Nose		Inflammation	Minimal
* Ovary		Cyst	Moderate
[Cyst TGLS = 1-11]			
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 298

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403558

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 2-5]

* Thymus

Leukemia Mononuclear

* Urinary Bladder

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 299

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403559

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Adrenal Medulla		Hypertrophy	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Parasite Metazoan	
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hematopoietic Cell Proliferation	Minimal
		Inflammation	Minimal
[Basophilic Focus TGLS = 2-6+7+14]			
* Lung	Alveolar Epith Alveolus	Hyperplasia Infiltration Cellular Inflammation	Minimal Histocyte, Minimal Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 3-8]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 300

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 2 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403560

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 301

TRT#: 6

SEX: Female

DAY ON TEST: 632

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403561

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy Vacuolization Cytoplasmic	Cystic, Minimal Minimal Minimal
* Clitoral Gland [Cyst TGLS = 3-12]	Duct	Cyst	Mild
* Eye [Cataract TGLS = 1-10]	Retina	Atrophy Cataract	Marked Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular Inflammation	Histiocyte, Minimal Minimal
* Mammary Gland [Fibroadenoma TGLS = 2-13]		Fibroadenoma	
* Nose		Inflammation	Moderate
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 301	TRT#: 6 DOSE: 6 MG/KG	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: 632 HISTO: 0403561
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ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland	SOA Epidermis C Cell	Hyperplasia Hyperplasia	Minimal Minimal
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PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 302

TRT#: 6

SEX: Female

DAY ON TEST: 561

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403562

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Thymus	* Thyroid Gland	* Trachea

MISSING

* Lymph Node, Mandibular	* Urinary Bladder
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
		Necrosis	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		[Hematopoietic Cell Proliferation TGLS = 1-5]	
* Stomach, Glandular		Erosion	Moderate
* Urin Bladder			
		Note: urinary bladder obliterated by uterine mass (TGL3).	
* Uterus		Sarcoma Stromal	
		[Sarcoma Stromal TGLS = 3-14]	

PRIMARY CAUSE OF DEATH

- Uterus Sarcoma Stromal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 302

TRT#: 6

SEX: Female

DAY ON TEST: 561

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403562

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 303

TRT#: 6

SEX: Female

DAY ON TEST: 716

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403563

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Nose	* Ovary	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
Blood Vessel			
Note: MCL in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-14]			
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-14]			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 303

TRT#: 6

SEX: Female

DAY ON TEST: 716

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403563

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-13]

* Spleen

Leukemia Mononuclear

* Thymus

Leukemia Mononuclear

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 304

TRT#: 6

SEX: Female

DAY ON TEST: 626

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403564

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 305 TRT#: 6 SEX: Female DAY ON TEST: 729
DOSE: 6 MG/KG DISP: Terminal Sacrifice HISTO: 0403565

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 2-13]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	[Hyperplasia TGLS = 1-13]		
* Thyroid Gland	C Cell	Adenoma	
	[Adenoma TGLS = 3-8]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 306

TRT#: 6

SEX: Female

DAY ON TEST: 617

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403566

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Ovary		Cyst	Moderate
[Cyst TGLS = 1-11]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
* Spleen		Leukemia Mononuclear	
* Stomach, Forestomach		Fibrosis	Moderate
		Inflammation	Moderate
[Fibrosis TGLS = 3-13]			
[Inflammation TGLS = 3-13]			
* Stomach, Glandular		Inflammation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 306

TRT#: 6

SEX: Female

DAY ON TEST: 617

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403566

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Stomach;Forestomach Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 307

TRT#: 6

SEX: Female

DAY ON TEST: 664

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403567

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
Blood Vessel			
Note: MCL in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6+7]			
* Lung		Leukemia Mononuclear	
Lymph Node	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 7-14]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Mammary Gland		Leukemia Mononuclear	
Note: MCL in mammary gland (slide 12 and 13).			
[Leukemia Mononuclear TGLS = 9-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 307	TRT#: 6 DOSE: 6 MG/KG	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: 664 HISTO: 0403567
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ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [Leukemia Mononuclear TGLS = 6-8]		Leukemia Mononuclear	
* Skin [Hyperkeratosis TGLS = 1-13]	SOA Epidermis	Hyperkeratosis	Mild
* Spleen [Leukemia Mononuclear TGLS = 2-5]		Leukemia Mononuclear	
* Thymus [Leukemia Mononuclear TGLS = 5-3]		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 308

TRT#: 6

DOSE: 6 MG/KG

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 617

HISTO: 0403568

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 2-13]			
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
[Cyst TGLS = 3-14]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
Note: polyp within region of intussusception (TGL1).			
[Polyp Stromal TGLS = 1-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 308

TRT#: 6

SEX: Female

DAY ON TEST: 617

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403568

ORGAN AND ACCOUNTABLE SITE STATUS

Vagina

Note: TGL1 coded as uterus.

PRIMARY CAUSE OF DEATH

- Uterus Polyp Stromal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 309

TRT#: 6

SEX: Female

DAY ON TEST: 453

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403569

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: optic nerve not found.			
* Heart		Cardiomyopathy	Mild
* Liver		Basophilic Focus	Minimal
		Inflammation	Mild
[Basophilic Focus TGLS = 3-13]			
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Ovary		Cyst	Moderate
[Cyst TGLS = 2-11]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperkeratosis TGLS = 1-13]			

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:23

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 310

TRT#: 6

SEX: Female

DAY ON TEST: 530

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403570

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Clitoral GI			
Note: 1 clitoral gland missing.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
	Hepatocyte	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin	SOA Epidermis	Hyperkeratosis	Mild
* Uterus		Schwannoma Malignant	
[Schwannoma Malignant TGLS = 1-14]			

PRIMARY CAUSE OF DEATH

- Uterus Schwannoma Malignant

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 311

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403571

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Eye			
Note: optic nerve not found.			
* Heart		Cardiomyopathy	Moderate
* Islets, Pancreatic		Adenoma	
[Adenoma TGLS = 3-14]			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Pancreatic	Infiltration Cellular	Histiocyte, Moderate
[Infiltration Cellular TGLS = 3-14]			
Mesentery			
Note: TGL3 is coded under lymph node (pancreatic) and islets, pancreas (islet cell adenoma).			
* Ovary		Congestion	Mild
[Congestion TGLS = 2-11]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 4-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 311	TRT#: 6 DOSE: 6 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: 0403571
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ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 312

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403572

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 3-14]			
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 1-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:23
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 313

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403573

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
		Hyperplasia	Minimal
		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	[Hyperkeratosis TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 314

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403574

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[Basophilic Focus TGLS = 4-6]		
	[Hepatodiaphragmatic Nodule TGLS = 5,6-16]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 1-13]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-15]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	[Hyperplasia TGLS = 2-14]		
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 314

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403574

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 315

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403575

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Moderate
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
[Fatty Change TGLS = 2-14]			
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 4-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 316

TRT#: 6

SEX: Female

DAY ON TEST: 442

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403576

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Marked
* Kidney		Mineralization	Minimal
* Liver		Hematopoietic Cell Proliferation	Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-14]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 2-13]			

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 317

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403577

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Eye			
Note: optic nerve in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear Mineralization Nephropathy	Minimal Mild
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6+7]			
* Lung		Inflammation	Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 4-15]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
* Spleen		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 317	TRT#: 6	SEX: Female	DAY ON TEST: 730
	DOSE: 6 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403577

ORGAN AND ACCOUNTABLE SITE STATUS

[Leukemia Mononuclear TGLS = 3-14]

* Thyroid Gland	C Cell	Hyperplasia	Minimal
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PRIMARY CAUSE OF DEATH

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 318

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403578

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-14]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 319

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403579

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Accessory Adrenal Cortical Nodule	Minimal
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
	[Accessory Adrenal Cortical Nodule TGLS = 3-14]		
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Ovary		Cyst	Marked
	[Cyst TGLS = 2-13]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-14]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 319

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403579

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-13]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 320	TRT#: 6	SEX: Female	DAY ON TEST: 603
	DOSE: 6 MG/KG	DISP: Natural Death	HISTO: 0403580

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Moderate
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 3-13]			

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 321

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403581

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 5-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 2-13]		
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
	[Hyperplasia TGLS = 6-14]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-15]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 321	TRT#: 6	SEX: Female	DAY ON TEST: 730
	DOSE: 6 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403581

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen [Leukemia Mononuclear TGLS = 3-5]	Leukemia Mononuclear	
* Uterus Note: physiologic horn dilatation. [Hydrometra TGLS = 4-11]	Hydrometra	Mild

PRIMARY CAUSE OF DEATH -
Animal Note: Liver-TGLS=7 - No Corresponding Lesion

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 322

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403582

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Hemorrhage	Marked
[Hemorrhage TGLS = 3-13]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 323

TRT#: 6

SEX: Female

DAY ON TEST: 687

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403583

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Fatty Change	Minimal
		Inflammation	Minimal
		Necrosis	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	Subcut Tiss	Schwannoma Malignant	
[Hyperkeratosis TGLS = 2-14]			
[Schwannoma Malignant TGLS = 1-13]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 324

TRT#: 6

SEX: Female

DAY ON TEST: 581

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403584

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye	Retina	Atrophy	Marked
		Cataract	Moderate
	[Cataract TGLS = 2-10]		
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-13]		
* Skin	SOA Epidermis	Hyperkeratosis	Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 325

TRT#: 6

SEX: Female

DAY ON TEST: 513

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403585

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Liver		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
			[Infiltration Cellular TGLS = 6-6]
* Mammary Gland		Adenoma	
		Cyst	Moderate
			[Adenoma TGLS = 2-14]
			[Cyst TGLS = 3-15]
Mesentery		Necrosis	Moderate
			[Necrosis TGLS = 4-15]
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
			[Adenoma TGLS = 5-8]
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
			[Hyperplasia TGLS = 1-13]
* Stomach, Forestomach		Ulcer	Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 325

TRT#: 6

SEX: Female

DAY ON TEST: 513

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403585

ORGAN AND ACCOUNTABLE SITE STATUS

[Ulcer TGLS = 7-13]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Stomach;Forestomach Ulcer

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 326

TRT#: 6

SEX: Female

DAY ON TEST: 630

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403586

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
	[Hyperplasia TGLS = 3-13]		
* Spleen		Infarct	Marked
		Leukemia Mononuclear	
	Note: infarct associated with MCL.		
	[Leukemia Mononuclear TGLS = 1-5]		
* Trachea		Inflammation	Minimal

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 327

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403587

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Moderate
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Hepatocellular Adenoma	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[Hepatocellular Adenoma TGLS = 3-14]		
	[Hepatodiaphragmatic Nodule TGLS = 2-13]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Mild
	[Adenoma TGLS = 4-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 327

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403587

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-13]

SOA Dermis

Inflammation

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 328

TRT#: 6

SEX: Female

DAY ON TEST: 657

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403588

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-6+7]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Moderate
[Cyst TGLS = 5-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 4-13]			
* Spleen		Leukemia Mononuclear	
		Metaplasia	Lipocyte, Mild
[Metaplasia TGLS = 3-13]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 329

TRT#: 6

SEX: Female

DAY ON TEST: 687

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403589

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Thymus	* Trachea	* Urinary Bladder	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Necrosis	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Necrosis	Moderate
		Nephropathy	Mild
		Thrombosis	Mild
	[Necrosis TGLS = 3-5, 4-14]		
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Inflammation	Minimal
* Nose		Cyst	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
	Pars Distalis		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 329	TRT#: 6	SEX: Female	DAY ON TEST: 687
	DOSE: 6 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403589

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 5-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 1-5]			
* Stomach, Glandular		Erosion	Mild
[Erosion TGLS = 6-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal
PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 330

TRT#: 6

DOSE: 6 MG/KG

SEX: Female

DISP: Natural Death

DAY ON TEST: 652

HISTO: 0403590

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Kidney	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Clitoral Gland		Hyperplasia Inflammation	Mild Moderate
[Hyperplasia TGLS = 2-12]			
[Inflammation TGLS = 2-12]			
* Heart		Cardiomyopathy	Mild
* Liver		Basophilic Focus Hepatodiaphragmatic Nodule Inflammation	Minimal
[Basophilic Focus TGLS = 6-15]			
[Hepatodiaphragmatic Nodule TGLS = 4-13]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-14]			
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 5-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 1-13]			

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 330

TRT#: 6

SEX: Female

DAY ON TEST: 652

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403590

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 331

TRT#: 6

SEX: Female

DAY ON TEST: 589

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403591

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Minimal
	[Basophilic Focus TGLS = 4-6+7+14]		
	Mesentery	Necrosis	Moderate
	[Necrosis TGLS = 2-14]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-13]		
* Uterus		Polyp Stromal	
	[Polyp Stromal TGLS = 3-13]		

PRIMARY CAUSE OF DEATH

- Uterus Polyp Stromal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 332

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403592

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy	Cystic, Minimal Minimal
* Eye			
Note: optic nerve not found.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization Nephropathy	Minimal Minimal
* Liver		Basophilic Focus Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 333

TRT#: 6

SEX: Female

DAY ON TEST: 596

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403593

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: optic nerve not found.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
* Uterus		Polyp Stromal	
Zymbal's Gland		Adenoma	
[Adenoma TGLS = 1-13]			

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Zymbal's Gland Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 334

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403594

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Minimal
		Necrosis	Moderate
Mesentery			
[Necrosis TGLS = 3-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
[Hyperkeratosis TGLS = 1-13]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 335

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403595

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 2-14]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-13]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 336

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403596

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | Blood Vessel | * Bone |
| * Bone Marrow | * Brain | * Esophagus | * Eye |
| * Harderian Gland | * Intestine Large, Cecum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Pancreas | * Parathyroid Gland |
| * Salivary Glands | * Spleen | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|-----------------------------|---------------|-----------------------|---------------------|
| * Clitoral Gland | | Adenoma | |
| [Adenoma TGLS = 1-13] | | | |
| * Heart | | Cardiomyopathy | Mild |
| * Intestine Large, Colon | | Parasite Metazoan | |
| * Intestine Large, Rectum | | Parasite Metazoan | |
| * Liver | | Basophilic Focus | |
| | | Inflammation | Minimal |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| * Ovary | | Cyst | Mild |
| * Pituitary Gland | Pars Distalis | Adenoma | |
| * Skin | SOA Epidermis | Hyperkeratosis | Minimal |
| | SOA Epidermis | Hyperplasia | Minimal |
| | SOA Dermis | Inflammation | Minimal |
| [Hyperplasia TGLS = 2-14] | | | |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 337

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403597

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 2-12]			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 1-13]			
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 338	TRT#: 6	SEX: Female	DAY ON TEST: 646
	DOSE: 6 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403598

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Leukemia Mononuclear	
Blood Vessel	Aorta	Leukemia Mononuclear	
Note: MCL in peri-aortic fat.			
[Leukemia Mononuclear TGLS = 11-7]			
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Moderate
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4,5-6+7+13]			
* Lung		Leukemia Mononuclear	
Lymph Node	Axillary	Leukemia Mononuclear	
	Deep Cervical	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
Note: TGL6 = axillary.			
[Leukemia Mononuclear TGLS = 7-17]			
[Leukemia Mononuclear TGLS = 9-20]			
[Leukemia Mononuclear TGLS = 6-16]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 338	TRT#: 6	SEX: Female	DAY ON TEST: 646
	DOSE: 6 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403598

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric [Leukemia Mononuclear TGLS = 12-6]		Leukemia Mononuclear	
* Mammary Gland [Fibroadenoma TGLS = 8-18]		Fibroadenoma	
* Pituitary Gland		Leukemia Mononuclear	
* Skin [Hyperkeratosis TGLS = 1-13]	SOA Epidermis	Hyperkeratosis	Mild
* Spleen [Accessory Spleen TGLS = 3-14] [Leukemia Mononuclear TGLS = 2-15]		Accessory Spleen Leukemia Mononuclear	
* Thymus [Leukemia Mononuclear TGLS = 10-19]		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 339

TRT#: 6

SEX: Female

DAY ON TEST: 713

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403599

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-8]			

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 340

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403600

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
	[Hyperplasia TGLS = 1-13]		
* Spleen		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-13]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 340

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403600

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 341

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403601

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 6-6+7]			
* Lung	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Mild
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 5-13]			
* Nose		Inflammation	Mild
* Ovary		Cyst	Mild
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-14]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 1-13]			
* Thyroid Gland	C Cell	Carcinoma	
[Carcinoma TGLS = 3-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 341

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403601

ORGAN AND ACCOUNTABLE SITE STATUS

* Uterus

Hemorrhage

Moderate

[Hemorrhage TGLS = 4-11]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 342

TRT#: 6

SEX: Female

DAY ON TEST: 602

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403602

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	Mild
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-13]			
* Pancreas		Basophilic Focus	
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Mild
[Adenoma TGLS = 4-14]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperkeratosis TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Sarcoma Stromal	
Note: bilateral physiologic horn lumen dilatation.			
[Sarcoma Stromal TGLS = 2-15]			

PRIMARY CAUSE OF DEATH - Uterus Sarcoma Stromal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 342

TRT#: 6

SEX: Female

DAY ON TEST: 602

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403602

ORGAN AND ACCOUNTABLE SITE STATUS

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 343

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403603

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: optic nerve in block 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
			[Hyperplasia TGLS = 1-13]
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 344

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403604

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Clitoral Gland	Duct	Cyst	Moderate
[Cyst TGLS = 1-12]			
* Heart		Cardiomyopathy	Mild
* Kidney		Inflammation	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
[Basophilic Focus TGLS = 2-13]			
[Mixed Cell Focus TGLS = 3-14]			
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 5-15]			
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
[Hyperkeratosis TGLS = 4-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 344

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403604

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 345

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403605

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 2,3-12]			
* Eye			
Note: one optic nerve found in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
[Hepatodiaphragmatic Nodule TGLS = 4-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pancreas			
Note: focal chronic inflammation in peripancreatic fat.			
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 5-14]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
[Hyperkeratosis TGLS = 1-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 345

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403605

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 346

TRT#: 6

SEX: Female

DAY ON TEST: 726

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403606

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Lymph Node, Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Histiocytic Sarcoma	
* Brain		Hemorrhage	Moderate
[Hemorrhage TGLS = 4-14]			
* Heart		Cardiomyopathy	Mild
* Liver		Histiocytic Sarcoma	
[Histiocytic Sarcoma TGLS = 2-14]			
* Lung		Hemorrhage	Moderate
		Histiocytic Sarcoma	
		Inflammation	Mild
* Mammary Gland		Histiocytic Sarcoma	
Mesentery		Histiocytic Sarcoma	
		Necrosis	Moderate
[Histiocytic Sarcoma TGLS = 3-13]			
[Necrosis TGLS = 3-13]			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
* Skin		Histiocytic Sarcoma	
	SOA Epidermis	Hyperkeratosis	Mild
[Hyperkeratosis TGLS = 1-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 346

TRT#: 6

SEX: Female

DAY ON TEST: 726

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0403606

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Histiocytic Sarcoma

PRIMARY CAUSE OF DEATH

- Brain Hemorrhage

CONTRIBUTORY CAUSE OF DEATH

- Liver Histiocytic Sarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 347

TRT#: 6

SEX: Female

DAY ON TEST: 496

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403607

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
[Leukemia Mononuclear TGLS = 5-5]			
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6+7]			
* Lung		Inflammation	Mild
* Nose		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 1-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
[Hyperkeratosis TGLS = 2-13]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-5]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 347

TRT#: 6

SEX: Female

DAY ON TEST: 496

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403607

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 348

TRT#: 6

SEX: Female

DAY ON TEST: 561

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403608

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver	Hepatocyte	Atypia Cellular	Mild
		Basophilic Focus	
		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 4,5-6+7+14]	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Moderate
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
		[Hyperplasia TGLS = 2-8]	
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
		[Hyperkeratosis TGLS = 1-13]	
* Spleen		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 3-13]	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 348

TRT#: 6

SEX: Female

DAY ON TEST: 561

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403608

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 349

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403609

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Moderate
* Kidney		Nephropathy	Moderate
* Liver		Basophilic Focus	
[Basophilic Focus TGLS = 4-13]			
* Lymph Node, Mesenteric		Atrophy	Mild
* Ovary		Cyst	Moderate
[Cyst TGLS = 2-11]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 350

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403610

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Mammary Gland		Cyst	Moderate
		Hyperplasia	Moderate
[Cyst TGLS = 2-13]			
[Hyperplasia TGLS = 2-13]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-14]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 350

TRT#: 6
DOSE: 6 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403610

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-13]	SOA Dermis	Inflammation	Minimal
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PRIMARY CAUSE OF DEATH

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* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 351

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403611

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Moderate
* Uterus		Leiomyoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 352

TRT#: 8

SEX: Female

DAY ON TEST: 489

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403612

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Clitoral Gland	* Esophagus	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Brain		Hydrocephalus	Minimal
* Eye	Retina	Atrophy	Marked
		Cataract	Mild
	[Cataract TGLS = 1-10]		
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-13]		
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 2-13]		
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 353

TRT#: 8

SEX: Female

DAY ON TEST: 467

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403613

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Moderate
* Brain		Hemorrhage	Moderate
		Leukemia Mononuclear	
	[Hemorrhage TGLS = 6-9]		
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 4-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 5-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
	SOA Epidermis	Ulcer	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 353	TRT#: 8	SEX: Female	DAY ON TEST: 467
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403613

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-13] * Spleen	Hemorrhage Leukemia Mononuclear	Moderate
[Hemorrhage TGLS = 3-14] [Leukemia Mononuclear TGLS = 2-5] * Stomach, Forestomach	Inflammation Ulcer	Mild Mild
[Ulcer TGLS = 7-13]		

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 354

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403614

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[Basophilic Focus TGLS = 6-6]		
	[Hepatodiaphragmatic Nodule TGLS = 4,5-16]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[Fibroadenoma TGLS = 2,3-14+15]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 354	TRT#: 8 DOSE: 18 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: 0403614
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ORGAN AND ACCOUNTABLE SITE STATUS

Mesentery [Necrosis TGLS = 7,8-17+18]		Necrosis	Moderate
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 355

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403615

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Clitoral Gland		Adenoma	
		Hyperplasia	Mild
[Adenoma TGLS = 1-13]			
* Heart		Cardiomyopathy	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3,4-6]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 5-15]			
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 2-14]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 355

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403615

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Leukemia Mononuclear	
* Thymus		Cyst	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 356

TRT#: 8

SEX: Female

DAY ON TEST: 596

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403616

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 2-13]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Chondroma	
		Inflammation	Moderate
		Polyp, Inflammatory	Marked
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
	[Hyperplasia TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 356

TRT#: 8

SEX: Female

DAY ON TEST: 596

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403616

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 357

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403617

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Minimal
* Clitoral Gland	Duct	Cyst	Marked
		Hyperplasia	Mild
	[Cyst TGLS = 3-14]		
* Eye	Retina	Atrophy	Marked
		Cataract	Mild
	[Cataract TGLS = 2-10]		
* Heart		Cardiomyopathy	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 5-14]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 357	TRT#: 8 DOSE: 18 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: 0403617
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ORGAN AND ACCOUNTABLE SITE STATUS

[Adenoma TGLS = 4-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 358

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403618

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Ovary	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Eye	Retina	Atrophy	Marked
		Cataract	Moderate
	[Cataract TGLS = 2-10]		
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 3-13]		
* Nose		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-13]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 358

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403618

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 359

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403619

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
[Basophilic Focus TGLS = 3-14]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
[Hyperplasia TGLS = 4-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-14]			
* Uterus		Hydrometra	Mild
Note: physiologic dilatation of uterine horn.			
[Hydrometra TGLS = 2-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 359

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403619

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 360

TRT#: 8

SEX: Female

DAY ON TEST: 625

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403620

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Esophagus
* Eye	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Nose	* Ovary	* Parathyroid Gland	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration Vacuolization Cytoplasmic	Cystic, Mild Moderate
* Bone Marrow		Hyperplasia	Moderate
* Brain		Hydrocephalus	Minimal
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 4-12]			
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy Inflammation	Mild Moderate
* Kidney		Nephropathy	Minimal
Note: minimal inflammation found in pelvic fat.			
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia Inflammation	Moderate Mild
	Hepatocyte	Necrosis Regeneration	Mild Moderate
[Regeneration TGLS = 5-6+7]			
* Lung		Inflammation	Moderate
Note: perivascular/interstitial inflammation with hemosiderin pigment.			
* Lymph Node, Mesenteric		Inflammation	Moderate
Note: perinodal inflammation (microgranulomas).			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 360	TRT#: 8	SEX: Female	DAY ON TEST: 625
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403620

ORGAN AND ACCOUNTABLE SITE STATUS

[Inflammation TGLS = 7-6]			
* Mammary Gland		Hyperplasia	Moderate
[Hyperplasia TGLS = 3-15]			
Mesentery		Inflammation	Moderate
Note: granulomatous inflammation associated with segments of intestine.			
* Pancreas		Inflammation	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-8]			
* Salivary Glands		Inflammation	Mild
* Skin	Subcut Tiss	Fibroma	
	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	SOA Epidermis	Necrosis	Mild
[Fibroma TGLS = 2-14]			
[Hyperplasia TGLS = 1-13]			
* Spleen		Fibrosis	Minimal
Note: capsular fibrosis.			
* Thymus		Inflammation	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 361

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403621

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
		Inflammation	Minimal
* Lung		Inflammation	Mild
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 2-13]			
* Pancreas	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-13]			

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 362

TRT#: 8

SEX: Female

DAY ON TEST: 309

DOSE: 18 MG/KG

DISP: Natural Death

HISTO: 0403622

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	Lymph Node	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye		Cataract	Mild
Note: optic nerve not found. [Cataract TGLS = 2-8]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 1-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 3-14]			

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 363

TRT#: 8

SEX: Female

DAY ON TEST: 698

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403623

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
Blood Vessel			
Note: MCL found in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Brain		Leukemia Mononuclear	
Note: MCL in ependyma of ventricle.			
* Clitoral Gland		Adenoma	
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-6+7]			
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery			
Note: TGL4 = missing.			
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 363	TRT#: 8	SEX: Female	DAY ON TEST: 698
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403623

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	SOA Epidermis	Leukemia Mononuclear	Moderate
	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Dermis	Hyperplasia	Minimal
		Inflammation	
		Leukemia Mononuclear	
[Hyperplasia TGLS = 1-13]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-13]			
* Stomach, Forestomach		Inflammation	Minimal
* Thymus		Leukemia Mononuclear	
* Urinary Bladder		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 364

TRT#: 8

SEX: Female

DAY ON TEST: 561

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403624

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
Blood Vessel			
Note: MCL found in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver		Leukemia Mononuclear	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-15]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Mild
		Leukemia Mononuclear	
[Hyperplasia TGLS = 1-14]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 364	TRT#: 8 DOSE: 18 MG/KG	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: 561 HISTO: 0403624
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ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 2-13]	SOA Dermis	Inflammation	Minimal
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-5]			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
[Polyp Stromal TGLS = 4-15]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 365

TRT#: 8

SEX: Female

DAY ON TEST: 246

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403625

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Liver	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Kidney		Mineralization	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-14]			
* Pituitary Gland	Pars Distalis	Cyst	Minimal
Skeletal Muscle		Rhabdomyosarcoma	
Note: TGL1 coded as skeletal muscle.			
[Rhabdomyosarcoma TGLS = 1-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Mild
	SOA Epidermis	Necrosis	Minimal
[Hyperplasia TGLS = 2-14]			
* Thymus			
Note: Thymus presumed engulfed in TGL1 (rhabdomyosarcoma).			

PRIMARY CAUSE OF DEATH

- Skeletal Muscle Rhabdomyosarcoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 366

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403626

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 3-13]			
* Ovary		Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	SOA Epidermis	Necrosis	Minimal
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 366

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403626

ORGAN AND ACCOUNTABLE SITE STATUS

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 367

TRT#: 8

SEX: Female

DAY ON TEST: 716

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403627

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 4,5-13+15]			
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Skin	SOA Dermis	Fibrosis	Moderate
	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
	SOA Epidermis	Necrosis	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 367	TRT#: 8	SEX: Female	DAY ON TEST: 716
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403627

ORGAN AND ACCOUNTABLE SITE STATUS

[Fibrosis TGLS = 2-14]

[Hyperplasia TGLS = 1-13]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 368

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403628

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Clitoral Gland	* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Degeneration Hypertrophy Vacuolization Cytoplasmic	Cystic, Mild Mild Mild
Note: diffuse cortical hypertrophy. [Hypertrophy TGLS = 5-8]			
* Bone Marrow		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus Inflammation Mixed Cell Focus	Minimal
[Mixed Cell Focus TGLS = 4-13]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma Fibrosarcoma	
[Fibroadenoma TGLS = 2-14] [Fibrosarcoma TGLS = 1-13]			
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-15]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 368

TRT#: 8
DOSE: 18 MG/KG

SEX: Female
DISP: Terminal Sacrifice

DAY ON TEST: 729
HISTO: 0403628

ORGAN AND ACCOUNTABLE SITE STATUS

SOA Epidermis
SOA Dermis

Hyperplasia
Inflammation

Mild
Minimal

[Hyperplasia TGLS = 3-14]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 369

TRT#: 8

SEX: Female

DAY ON TEST: 112

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403629

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | Blood Vessel | * Bone |
| * Bone Marrow | * Brain | * Clitoral Gland | * Esophagus |
| * Eye | * Harderian Gland | * Heart | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Kidney | * Lymph Node, Mesenteric |
| * Mammary Gland | * Nose | * Ovary | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Spleen | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|---------|----------------|-----------------------|---------------------|
| * Liver | | Inflammation | Minimal |
| * Lung | Alveolar Epith | Hyperplasia | Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | Serosa | Inflammation | Mild |

Note: pleural inflammation and mesothelial hypertrophy attributable to chylothorax = COD.

PRIMARY CAUSE OF DEATH

- Lung Serosa Inflammation

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 370

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403630

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
[Basophilic Focus TGLS = 3-6+7]			
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 2-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 371

TRT#: 8

SEX: Female

DAY ON TEST: 642

DOSE: 18 MG/KG

DISP: Natural Death

HISTO: 0403631

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-13]		

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 372

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403632

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 2-6+7]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Mild
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 6-13]		
* Ovary		Cyst	Moderate
	[Cyst TGLS = 3,4-11]		
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 7-13]		
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 372

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403632

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 5-13]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 1-5]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 373

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403633

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Clitoral Gland			
Note: 1 clitoral gland missing.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
		Infiltration Cellular	Mononuclear CI, Minimal
[Fibroadenoma TGLS = 2-14]			
* Pancreas	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Skin	Subcut Tiss	Fibrosarcoma	
	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild

Note: TGL1 = fibrosarcoma in the subcutis of back.

[Fibrosarcoma TGLS = 1-13]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 373

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403633

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 3-13]

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 374

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403634

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Ovary		Cyst	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
[Adenoma TGLS = 2-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 375

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403635

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Nose
* Ovary	* Pancreas	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
--------------------------	---------------------

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Hyperplasia	Mild
		Inflammation	Moderate
[Inflammation TGLS = 4-12]			
* Eye	Retina	Atrophy	Marked
		Cataract	Mild
[Cataract TGLS = 1-10]			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 5-6+7]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 3-13]			
Mesentery		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 6-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 375	TRT#: 8 DOSE: 18 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: 0403635
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ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 2-14]			
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 376

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403636

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Ovary
* Pancreas	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy Leukemia Mononuclear	Minimal
Blood Vessel			
Note: MCL found in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Eye	Retina	Atrophy Cataract	Marked Moderate
[Cataract TGLS = 1-10]			
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear Nephropathy	Minimal
* Liver	Bile Duct	Basophilic Focus Hyperplasia Leukemia Mononuclear	Minimal
[Leukemia Mononuclear TGLS = 4-6+7]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Inflammation	Moderate
* Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Cyst	Mild
[Adenoma TGLS = 5-8]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 376	TRT#: 8 DOSE: 18 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 729 HISTO: 0403636
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ORGAN AND ACCOUNTABLE SITE STATUS

* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 2-13]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-5]			
* Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 377

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403637

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Clitoral Gland			
Note: 1 clitoral gland missing.			
* Harderian Gland		Inflammation	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 2-13]			
* Pancreas	Acinus	Atrophy	Mild
	Duct	Cyst	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-13]			
* Thymus			
Note: small segment of thymus present.			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 377

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403637

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 378

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403638

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Kidney
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Inflammation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
		[Hyperplasia TGLS = 1-13]	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus	Endometrium	Hyperplasia	Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 379

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403639

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Pituitary Gland	Pars Distalis	Cyst	Moderate
	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
	[Hyperplasia TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 380

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403640

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Adenoma	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Cyst	Mild
		Hyperplasia	Mild
		Inflammation	Mild
		[Cyst TGLS = 2,3-13+14]	
		[Hyperplasia TGLS = 2,3-13+14]	
* Pituitary Gland	Pars Distalis	Adenoma	
		[Adenoma TGLS = 4-13]	
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild

Note: TGL3 = mammary duct cysts and duct hyperplasia.

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 380

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403640

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-14]

* Uterus

Endometrium

Hyperplasia

Cystic, Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 381

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403641

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Eye			
Note: optic nerve in slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-8]			
* Skin	Hair Follicle	Cyst	
	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Cyst TGLS = 2-14]			
[Hyperplasia TGLS = 1-13]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 381

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403641

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 382

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403642

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Ovary		Cyst	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Skin		Basal Cell Adenoma	
	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
		Neural Crest Tumor	

Note: sebaceous differentiation noted in basal cell adenoma of limb (TGL3).

[Basal Cell Adenoma TGLS = 3-13]

[Hyperplasia TGLS = 1-13]

[Neural Crest Tumor TGLS = 2-14]

* Thyroid GI

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 382

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403642

ORGAN AND ACCOUNTABLE SITE STATUS

Note: 1 thyroid gland missing.

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 383

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403643

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Harderian Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Skin	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
	[Hyperplasia TGLS = 1-13]		

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 384

TRT#: 8

SEX: Female

DAY ON TEST: 653

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403644

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	Peripheral Nerve	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Marked
* Brain		Hemorrhage	Moderate
	[Hemorrhage TGLS = 4,5-9]		
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
		Leukemia Mononuclear	
	[Hyperplasia TGLS = 3-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
	[Hyperplasia TGLS = 1-13]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 384	TRT#: 8	SEX: Female	DAY ON TEST: 653
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403644

ORGAN AND ACCOUNTABLE SITE STATUS

Spinal Cord	Hemorrhage	Moderate
* Spleen	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-5]		

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Brain Hemorrhage

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 385

TRT#: 8

SEX: Female

DAY ON TEST: 499

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403645

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 4,5-14+15]		
	[Leukemia Mononuclear TGLS = 3-6+7]		
* Lung		Inflammation	Minimal
		Leukemia Mononuclear	
	Note: inflammation associated with eosinophilic crystals.		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 1-13]		
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 385	TRT#: 8	SEX: Female	DAY ON TEST: 499
	DOSE: 18 MG/KG	DISP: Moribund Sacrifice	HISTO: 0403645

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 6-15]	SOA Dermis	Inflammation	Minimal
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-14]			
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear
CONTRIBUTORY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 386

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403646

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Spleen	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
[Fibroadenoma TGLS = 1-14]			
* Nose		Inflammation	Minimal
* Ovary		Cyst	Moderate
[Cyst TGLS = 3-14]			
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
[Adenoma TGLS = 4-13]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 2-13]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 386

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403646

ORGAN AND ACCOUNTABLE SITE STATUS

* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 387

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403647

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[Hepatodiaphragmatic Nodule TGLS = 2-13]		
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 3-14]		
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 387

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403647

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 388

TRT#: 8

SEX: Female

DAY ON TEST: 656

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403648

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Nose	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Minimal
* Brain		Hemorrhage	Mild
		Hydrocephalus	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Mild
		Inflammation	Minimal
	[Fatty Change TGLS = 7-15]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[Fibroadenoma TGLS = 1,2-13+14]		
* Ovary		Cyst	Mild
	[Cyst TGLS = 5-15]		
* Pancreas	Duct	Cyst	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 4-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 388	TRT#: 8 DOSE: 18 MG/KG	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: 656 HISTO: 0403648
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ORGAN AND ACCOUNTABLE SITE STATUS

	SOA Dermis	Inflammation	Minimal
	SOA Epidermis	Necrosis	Minimal
Note: orthokeratosis evident in TGL3. [Hyperplasia TGLS = 3-15]			
* Stomach, Forestomach [Ulcer TGLS = 6-13]		Ulcer	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 389

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403649

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Ovary
* Parathyroid Gland	* Salivary Glands	* Spleen	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[Adenoma TGLS = 2-8]		
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
	[Hyperplasia TGLS = 1-13]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 390

TRT#: 8

SEX: Female

DAY ON TEST: 496

DOSE: 18 MG/KG

DISP: Natural Death

HISTO: 0403650

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 3-13]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
[Hyperplasia TGLS = 1-13]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-5]			

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 391

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403651

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Nose	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Mammary Gland		Cyst	Marked
[Cyst TGLS = 4-16]			
Mesentery		Necrosis	Moderate
[Necrosis TGLS = 1-14]			
* Pituitary Gland	Pars Distalis	Cyst	Mild
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
	Epidermis	Necrosis	Mild
	Epidermis	Ulcer	Moderate
[Hyperplasia TGLS = 2-13]			
[Necrosis TGLS = 3-15]			
[Ulcer TGLS = 3-15]			

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 391

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403651

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 392

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403652

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Clitoral Gland		Inflammation	Moderate
[Inflammation TGLS = 3-12]			
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Clear Cell Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Minimal
	Pars Distalis	Hyperplasia	Mild
[Adenoma TGLS = 4-14]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-13]			
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 392

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403652

ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 2-13]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 393

TRT#: 8

SEX: Female

DAY ON TEST: 569

DOSE: 18 MG/KG

DISP: Natural Death

HISTO: 0403653

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Spleen	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Mild
* Pituitary Gland	Pars Distalis	Cyst	Mild
	Pars Distalis	Hyperplasia	Minimal
* Skin	SOA Epidermis	Hyperkeratosis	Minimal
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal

[Hyperplasia TGLS = 1-13]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 394

TRT#: 8

SEX: Female

DAY ON TEST: 652

DOSE: 18 MG/KG

DISP: Natural Death

HISTO: 0403654

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
* Liver		Leukemia Mononuclear	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
		Leukemia Mononuclear	
* Lymph Node, Mesenteric			
* Mammary Gland			
Note: TGL1 = NCL.			
* Pituitary Gland	Pars Distalis	Cyst	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Moderate
	SOA Dermis	Inflammation	Mild
		[Hyperplasia TGLS = 2-13]	
* Spleen		Leukemia Mononuclear	
		[Leukemia Mononuclear TGLS = 3-5]	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 394	TRT#: 8	SEX: Female	DAY ON TEST: 652
	DOSE: 18 MG/KG	DISP: Natural Death	HISTO: 0403654

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Glandular [Adenoma TGLS = 4-13]		Adenoma	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	- Spleen	Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 395

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403655

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
* Clitoral Gland		Hyperplasia	Minimal
* Eye	Retina	Atrophy	Mild
	Retina	Dysplasia	Mild
Note: NCL for TGL2			
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
[Basophilic Focus TGLS = 4-6+7]			
* Lung	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Minimal
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[Adenoma TGLS = 3-14]			
* Skin	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 395	TRT#: 8 DOSE: 18 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: 0403655
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ORGAN AND ACCOUNTABLE SITE STATUS

[Hyperplasia TGLS = 1-13] * Thyroid Gland	SOA Dermis C Cell	Inflammation Hyperplasia	Mild Minimal
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PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 396

TRT#: 8

SEX: Female

DAY ON TEST: 664

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403656

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
	[Hepatodiaphragmatic Nodule TGLS = 6-14]		
* Lung		Leukemia Mononuclear	
	Note: interstitial fibrosis, inflammation and alveolar hyperplasia are suspected associated with MCL.		
Lymph Node	Mediastinal	Leukemia Mononuclear	
	[Leukemia Mononuclear TGLS = 7-15]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Necrosis	Moderate
	[Necrosis TGLS = 4-13]		
* Ovary		Cyst	Moderate
	[Cyst TGLS = 5-11]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Skin	SOA Epidermis	Hyperkeratosis	Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 396	TRT#: 8 DOSE: 18 MG/KG	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: 664 HISTO: 0403656
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ORGAN AND ACCOUNTABLE SITE STATUS

	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Mild
[Hyperplasia TGLS = 1-13]			
* Spleen		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 2-5]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 397

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403657

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Eye	Retina	Atrophy	Marked
		Cataract	Moderate
	[Cataract TGLS = 1-10]		
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
	Note: TGL6 suspected an HDN that fragmented off into the mediastinum upon necropsy.		
	[Hepatodiaphragmatic Nodule TGLS = 6-13]		
	[Leukemia Mononuclear TGLS = 5-6]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	
	[Fibroadenoma TGLS = 3-14]		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 397

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403657

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland

Leukemia Mononuclear

* Skin

SOA Epidermis

Hyperkeratosis

Moderate

SOA Epidermis

Hyperplasia

Moderate

SOA Dermis

Inflammation

Minimal

[Hyperplasia TGLS = 2-13]

* Spleen

Leukemia Mononuclear

[Leukemia Mononuclear TGLS = 4-5]

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 398

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403658

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Nose	* Parathyroid Gland	* Salivary Glands	* Spleen
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Trachea
* Urinary Bladder	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Marked
* Clitoral Gland		Adenoma	
[Adenoma TGLS = 2-14]			
* Eye			
Note: optic nerve found in slide 9.			
* Heart		Cardiomyopathy	Mild
* Int Lg Rectum			
Note: Rectal mucosa herniated into submucosa.			
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
		Hemorrhage	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
[Basophilic Focus TGLS = 6-6]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Ovary		Thecoma Benign	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 398	TRT#: 8	SEX: Female	DAY ON TEST: 729
	DOSE: 18 MG/KG	DISP: Terminal Sacrifice	HISTO: 0403658

ORGAN AND ACCOUNTABLE SITE STATUS

[Thecoma Benign TGLS = 4-11]			
* Pancreas	Acinus	Atrophy	Minimal
	Duct	Cyst	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Cyst	Moderate
[Adenoma TGLS = 3-8]			
* Skin	SOA Epidermis	Hyperkeratosis	Mild
	SOA Epidermis	Hyperplasia	Minimal
	SOA Dermis	Inflammation	Minimal
	Subcut Tiss	Schwannoma Malignant	
[Hyperplasia TGLS = 1-13]			
[Schwannoma Malignant TGLS = 5-15]			
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07

Test Type: CHRONIC

Route: SKIN APPLICATION

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Dibromo-2,4-dicyanobutane

CAS Number: 35691-65-7

Date Report Requested: 10/16/2014

Time Report Requested: 15:53:24

First Dose M/F: NA / NA

Lab: BAT

ANIMAL ID: 399

TRT#: 8

SEX: Female

DAY ON TEST: 664

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403659

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Nose	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Uterus		

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
Blood Vessel			
Note: MCL noted in peri-aortic fat.			
* Bone Marrow		Hyperplasia	Marked
* Esophagus			
Note: MCL in peri-esophageal tissue.			
* Kidney		Leukemia Mononuclear	
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 8-6+7]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Note: enlarged bronchial lymph node not found (TGL6).			
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-14]			
[Leukemia Mononuclear TGLS = 5-15]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 399

TRT#: 8

SEX: Female

DAY ON TEST: 664

DOSE: 18 MG/KG

DISP: Moribund Sacrifice

HISTO: 0403659

ORGAN AND ACCOUNTABLE SITE STATUS

Mesentery [Necrosis TGLS = 3-13]		Necrosis	Moderate
* Pituitary Gland [Adenoma TGLS = 7-17]	Pars Distalis	Adenoma Leukemia Mononuclear	
* Skin [Hyperplasia TGLS = 1-13]	SOA Epidermis SOA Epidermis SOA Dermis	Hyperkeratosis Hyperplasia Inflammation	Mild Minimal Minimal
* Spleen [Leukemia Mononuclear TGLS = 2-5]		Leukemia Mononuclear	
* Thymus		Cyst Leukemia Mononuclear Leukemia Mononuclear	Mild
* Urinary Bladder			
PRIMARY CAUSE OF DEATH	- Spleen Leukemia Mononuclear		
CONTRIBUTORY CAUSE OF DEATH	- Pituitary Gland Pars Distalis Adenoma		

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 400

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403660

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Nose	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
		Hypertrophy	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
[Leukemia Mononuclear TGLS = 4-6]			
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[Hyperplasia TGLS = 3-14]			
* Skin	Hair Follicle	Cyst	
	SOA Epidermis	Hyperkeratosis	Moderate
	SOA Epidermis	Hyperplasia	Mild
	SOA Dermis	Inflammation	Minimal
[Cyst TGLS = 2-14]			
[Hyperplasia TGLS = 1-13]			
* Spleen		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	

* PROTOCOL REQUIRED TISSUE

Experiment Number: 97003-07
Test Type: CHRONIC
Route: SKIN APPLICATION
Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 1,2-Dibromo-2,4-dicyanobutane
CAS Number: 35691-65-7

Date Report Requested: 10/16/2014
Time Report Requested: 15:53:24
First Dose M/F: NA / NA
Lab: BAT

ANIMAL ID: 400

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 18 MG/KG

DISP: Terminal Sacrifice

HISTO: 0403660

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

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**** END OF REPORT ****